

# St. Bartholomew's Hospital



"Æquam memento rebus in arduis  
Servare mentem."

—Horace, Book ii, Ode iii.

## JOURNAL.

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### CALENDAR.

- Tues., Aug. 1.—Lord Horder and Sir C. Gordon-Watson on duty.  
Fri., „ 4.—Dr. Hinds Howell and Mr. Harold Wilson on duty.  
Mon., „ 7.—**Bank Holiday.**  
Tues., „ 8.—Dr. Gow and Mr. Girling Ball on duty.  
Fri., „ 11.—Dr. Graham and Mr. Vick on duty.  
Tues., „ 15.—Prof. Fraser and Prof. Gask on duty.  
Fri., „ 18.—Lord Horder and Sir C. Gordon-Watson on duty.  
Sat., „ 19.—**Last day for receiving matter for the  
September issue of the Journal.**  
Tues., „ 22.—Dr. Hinds Howell and Mr. Harold Wilson on duty.  
Fri., „ 25.—Dr. Gow and Mr. Girling Ball on duty.  
Tues., „ 29.—Dr. Graham and Mr. Vick on duty.

### EDITORIAL.

**W**E are constantly told by our elders that we should see ourselves as others see us. This is not always as easy as they would have us believe, for who can read the inner thoughts of a Zulu or of an Aboriginal?

Sir D'Arcy Power has kindly pointed out to us Miss M. E. Durham's description of the impressions of a distinguished visitor from the South Seas Isles on witnessing a modern surgical operation. It runs as follows:

"The High Priest dressed in white and having been ritually purified, is attended by male and female acolytes also specially garbed. The High Priest believes that

the ghost is hidden in the victim's belly. By means of a grotesque apparatus an acolyte asserts that he can temporarily remove the victim's soul and the victim becomes apparently unconscious. To scare away the ghost both the High Priest and acolytes wear grotesque masks and cover their hands with artificial skin. They paint part of the victim's body brown for a similar reason and drench him with purgatives to drive the ghost from his body. Knives of steel are used which have previously been put under a strict taboo. Only the ritually purified may touch them. While cutting a hole in the unfortunate victim the High Priest frequently becomes greatly excited, sweats freely and objurgates the female acolytes."

We have not been informed which London hospital was attended by this stranger, but we suspect that he must have been amongst the many foreign visitors we have noticed of late in the Surgical Block.

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### THE MEDICAL COLLEGE APPEAL.

Owing to the holiday season we have heard no recent news of the present state of the College Appeal, but we would call the attention of our readers to Dr. Eric Young's letter in the correspondence columns. All Bart.'s men will substantiate Dr. Young's words in regard to the magnificent work the Dean is doing in raising the required funds, but we wish that more of them would be like Dr. Young in feeling that they will become "outcast and traitor" if they do not support his scheme.

We feel sure that the generous offer put forward in his letter will prove to be a fresh stimulus for those who have as yet delayed their support, or have thrown

away the many letters of appeal without further consideration.

We understand that certain remarks in our last issue were misconstrued concerning the future of the Medical Curriculum and the new College Scheme. Our readers will realize, we hope, that such remarks were made in support of Dr. Batten's article on medical education, and were not in any sense derogatory to the scheme.

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#### ROYAL COLLEGE OF SURGEONS COUNCIL ELECTION.

We have to congratulate Sir Holburt Waring on being re-elected President of the Royal College of Surgeons, Prof. Gask as Vice-President, Sir Charles Gordon-Watson and Mr. Elmslie on being elected to the Council.

It is with great pleasure that we find Sir Charles Gordon-Watson's name at the head of the poll with 785 votes; he has written to us as follows:

"I should like, through the medium of your columns, to thank my many Bart.'s friends who supported me with such success at the recent Council Election, and so enabled me to be returned at the head of the poll."

\* \* \*

We have been asked by Sister Surgery to issue an appeal to our readers for any cast-off clothes, garments, shoes, etc., which would be of use to the poorer patients who attend the Surgery. The demand for such articles is great and the present supply scanty.

Will all those who can afford a new suit this summer please send their old one and any other garments, however valuable sentimentally, to Sister Surgery who will be extremely grateful and distribute them appropriately?

\* \* \*

Misfortune has again overtaken Mr. J. E. H. Roberts. We have been informed that while away in Switzerland, recuperating from his recent illness, he was suddenly taken ill with appendicitis and had to be operated upon by a Swiss surgeon. We extend our sympathy to Mr. Roberts for his long run of ill-health and wish him a speedy recovery.

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**The Warden requests us to state that the closing date for applicants for House Appointments in November is 12, mid-day Saturday, September 9th, 1933.**

## "STONE-CUTTERS AND STONE-CRUSHERS."\*

**T**HE earliest known specimen of "stone" is that discovered by Prof. Elliott Smith in a grave near Abydos, Egypt, estimated to be about 7000 years old. It was lying in the pelvis of a boy about 15 or 16 years of age.

The operation of "cutting for stone" or "lithotomy" dates from long before the Christian era. It was common in the time of Hippocrates (460 to 370 B.C.), being performed by non-professional itinerant stone-cutters, while the orthodox medical profession would have nothing to do with it, partly because it was considered *infra dig.* for a physician to work with his hands, and partly because it was held to be very degrading to interfere with the genital organs, an exception, however, being made in the case of circumcision performed by a priest.

Hippocrates made all his pupils swear by Apollo and all the gods that "neither will I cut them that have stone, but will leave this operation to those that are accustomed to perform it"—part of the Hippocratic oath.

The first description of the operation is that given by Celsus, who practised in Rome during the first century A.D., and it is therefore known as the "Celsian" operation or "apparatus minor", because it required very few instruments for its performance; it was also called "cutting on the gripe", and was doubtless suggested by the occasional ulceration of a stone through the perineum and its spontaneous escape.

**Operation.**—Patient was seated on the knees of a strong man, who with his arms held the legs apart. The operator introduced two or three fingers of the left hand into the rectum, hooked them over the stone and held it firmly against the perineum. With a dagger-shaped knife a transverse cut was made in front of the anus directly on to the stone, and all the tissues overlying the stone divided. If the stone did not at once escape the fingers were introduced to lift it out, or a blunt hook was passed behind it. Sometimes, if the stone was very large, it was fixed by passing the hook behind it, and then broken up with a fine chisel and extracted in pieces, as was first mentioned by Ammonius of Alexandria, 200 years B.C.

This comparatively simple operation was in vogue until the sixteenth century, *i. e.* for at least 2000 years, but was thought fit only for quacks and mountebanks. In it the bladder was opened behind the prostate—a

\* The Summer Sessional Address delivered before the Abernethian Society on Thursday, June 15th, 1933.

dangerous region from liability to extravasation of urine into the pelvic cellular tissues.

In the sixteenth century Marianus Sanctus, wishing to avoid this cutting of the bladder-wall, since Hippocrates had taught that wounds of the bladder are very fatal and seldom heal, introduced an operation that came to be known as the "Marian" operation or the "apparatus major", because of the number of instruments used compared to the "apparatus minor". He entered the bladder by forcibly stretching or tearing its neck.

*Marian operation.*—He used as a guide a staff with median groove. The incision was made to one side of the middle line, not going so far back as the transversus perinei muscle, and so not opening up the ischio-rectal fossa. The groove in the staff was felt for and the urethra opened in its membranous part by cutting on to the groove. Two strong iron probes, called "conductors", were passed into the bladder along the groove of the staff, and the staff was withdrawn. With a conductor in each hand the operator then forcibly separated them, tearing the deep parts, including the prostate. A dilator was then passed between the conductors, and the deep parts further stretched until the forceps could be introduced. The stone was seized and forcibly extracted.

It was a brutal operation, and the neck of the bladder and prostate were so torn that incontinence and fistula were common sequelæ. Moreover, since the transversus perinei was not divided, the stone had to be dragged through the narrow part of the pubic arch.

This "Marian" operation was the prototype of what came to be known later on as "median" lithotomy. It was extensively adopted by many stone-cutters, among whom was the famous family of the Collots, who practised lithotomy in France for eight generations, extending over 200 years. The first of the family was Germain Collot, a surgeon of high repute and in great favour with Louis XI. About 1460 he gained the confidence of some Italian lithotomists, and was allowed to watch and even assist at some of their operations. He then obtained permission of the King to operate upon a condemned criminal who was known to have stone in the bladder, and whose sentence of death was commuted to a sentence of "lithotomy". The operation was completely successful, and the King was so pleased that he granted Collot a pension. (The operation was performed in the churchyard of St. Severins in the presence of the King). One of the best known was Phillipe Collot (1593 to 1656). Their methods were kept strictly secret, and only the last of the family, François, (1630 to 1706), left any record of their work, and this was not published until after his death, in 1727.

The best known of all the itinerant stone-cutters was Jacques Baulot (Baulieu, or de Beaulieu), commonly known as *Frère Jacques*.

He was born at Besançon in Burgundy in 1651 (died there 1719), of poor parents. He served as trooper in a French cavalry regiment from the age of 16 for five years. On release from service he became servant to a strolling Italian stone-cutter and rupture-curer, and travelled with him through France and Italy for seven years. He then started for himself, adopted a semi-religious attitude, dressed like a monk except that he wore a large hat instead of a hood. He did this (1) for convenience in travelling, (2) for economy, since he thus received free entertainment at monasteries, and (3) because he felt that he really had a mission.

In 1688 he started calling himself *Frère Jacques*. Though a deeply religious man, he does not appear to have taken any steps to become attached to any monastic order. He never asked for any monetary reward for his services, and any money forced upon him he distributed to the poor, except the little required to repair his instruments and to sole his shoes. He always operated before physicians and surgeons, and at the end of the operation all he asked for was a certificate that the operation had been successful (*i.e.* that the stone had been removed). He usually left the city before the final result of the operation was known.

Armed with many of these certificates he arrived in Paris in 1697 at "La Charité" Hospital, and asked to be allowed to show his operation to the medical staff. He was refused at first, but through the influence of a Canon whom he had cured of stone he secured the patronage of the President of the French Parliament—de Harlay—and he was allowed to operate in the Hôtel-Dieu.

They would not trust him with a living patient, but allowed him to operate upon a dead body into whose bladder a stone had been placed. The surgeon-in-chief to the Hôtel-Dieu—Jean Méry—was a skilled anatomist, and he afterwards dissected the parts very carefully. He found that Jacques's incision had passed between the ejaculator urinæ and the erector penis muscles without injuring either of them, and had divided the neck of the bladder cleanly in a lateral direction. He noted that the bruising and tearing of the Marian operation were avoided, and Méry reported favourably upon the operation to the President. This raised such a storm of jealousy that Méry was obliged to recant his favourable report and Jacques was forced to leave Paris. He went to Fontainebleau, where the Court was, and got into favour by cutting a boy so successfully for stone before the Court physicians that he was able to walk about again in three weeks. This so pleased the King that

he ordered that Jacques should be lodged and kept at his expense. Under this Royal patronage he again entered Paris, and after a debate on April 7th, 1698, between the magistrates of the city and the physicians, surgeons and managers of the Hôtel-Dieu, it was decided to allow Jacques to operate for the ensuing session at La Charité and Hôtel-Dieu. He now operated in public, and the audience to see him was very great. In the month of April he cut 60 people for stone, with the result that 25 died, 22 remained in hospital with incontinence, fistula or other serious complication, and only 13 were cured. As this mortality was much greater than that of the other surgeons of Paris, his enemies again managed to drive him from the city.

He then resumed his wanderings in France and Holland, but seems to have kept up a correspondence with Dr. Fagon, the chief physician to Louis XIV, who induced Jacques to return to Versailles and to study anatomy. Together they studied the parts that were cut at the operation, and as a result Jacques improved his method: (1) he used a *grooved* staff to guide the knife more accurately, (2) he used an ordinary scalpel instead of his former dagger-shaped knife, (3) he avoided wounding the bladder behind the prostate.

His new operation proved very successful, and he cut 38 patients in succession at Versailles without a death.

He again resumed his wanderings, but in 1702 he was recalled to Paris to operate upon a great nobleman—the Maréchal de Lorges. As befitted his high rank a hospital was fitted up at his house, and before he would consent to operation he had 22 poor people operated upon by Jacques, all of them successfully. Thus encouraged, he submitted himself, but at the operation the cause of the symptoms was found to be, not stone, but malignant growth, and he died in a few days. Although Jacques was generally held to be blameless, yet he took this to heart so seriously that he left Paris again, and never returned.

He wandered about for some years after this, and had great success. In Amsterdam the magistrates presented him with his portrait and a set of sounds made of gold, but these he had melted down and gave the money to the poor of the city. He returned to his native village, and died there in 1719 at the age of 68.

Frère Jacques undoubtedly advanced the operation of lithotomy by—

(1) Incising the neck of the bladder cleanly, instead of tearing it open as in the Marian operation.

(2) Avoiding cutting the bladder behind the prostate—with its danger of extravasation of urine.

*Joannes Jacobus Rau* (1668 to 1719), one of the most renowned lithotomists on the Continent, was for many years Surgeon to the State Hospital at Amsterdam.

He practised the Marian operation, and when Jacques, after being driven out of Paris, visited Amsterdam in 1699 Rau vigorously denounced him and his operation. After dissecting the bodies of some who died after Jacques's operation, however, he came to see the advantage of Jacques's method of entering the bladder by cutting through the prostate laterally, instead of forcibly stretching and tearing the neck of the bladder as in the Marian operation he was then performing.

He further found that by keeping his left forefinger in the wound while introducing the knife into the deep urethra, he could keep the rectum out of the way and so avoid its being injured. He thereupon commenced to use Jacques's operation with his own slight addition, and met with greatly increased success. Yet he refused to give any credit to Jacques and continued to denounce his operation, deliberately misleading his colleagues into believing that he was performing Celsus' operation, with its dangerous cutting of the bladder behind the prostate.

His favourite assistant, Albinus, published an account of Rau's operation as he supposed that Rau performed it, and surgeons all over Europe, reading his description and knowing of Rau's great success, attempted to follow him, with disastrous results, thereby, by comparison, still further enhancing Rau's reputation. Some of these surgeons, however, among them Morand of Paris and Cheselden of St. Thomas's Hospital, complained to Albinus that his description of Rau's operation must have been inaccurate, and they accused him of misleading the profession. Albinus then had his eyes opened to the fact that he had been himself deliberately deceived by his chief, Rau, whose mean, selfish and grasping character had led him to keep the true nature of his successful operation a secret, and to induce his professional brethren to continue to perform what he knew to be a dangerous operation. He certainly amassed a large fortune, but was responsible, to his lasting shame, for many hundreds of deaths all over Europe.

Rau said in one of his lectures to his pupils, "Since I am obliged to live and gain my sustenance mainly by the employment of this method, I will not describe it to you at all. If I were forced to tell you something about it, that which I would tell you would not be the truth, wherefore I prefer to maintain absolute silence. If you can learn my method by seeing me operate, I have no objection to make, but for the rest read Celsus."

His angry colleagues suggested that the real reason he kept his left forefinger in the wound was to prevent them from seeing what he was cutting.

Rau's conduct was an inglorious exception to the accepted practice in our profession that any increase of knowledge should be at once pooled, and be available for the benefit of humanity at large.



*William Cheselden* (1688 to 1752) was lithotomist to St. Thomas's Hospital from 1723 to 1727.

Being dissatisfied with the results of Rau's operation as described by Albinus, Cheselden commenced a series of careful dissections of the parts concerned in the operation in an endeavour to avoid the dangerous incision of the bladder-wall behind the prostate. He discovered how to make the deep incision in the neck of the bladder and prostate only, and in a lateral direction so as to avoid the rectum—practically the same as Jacques's second operation.

He thus established the operation of "lateral lithotomy" as the recognized procedure, and as such it remained until displaced by the suprapubic operation and by lithotripsy.

Cheselden became extremely expert in performing this operation, and his time of 45 seconds for the operation from start to finish has rarely been approached, and never surpassed. On his retirement from St. Thomas's he had cut 213 patients there for stone with only 10 deaths.

There has been no important improvement in the operation of lateral lithotomy since Cheselden's time.

The last, and in some respects the greatest of the itinerant stone-cutters was *Frère Jean de Saint-Come* (1703 to 1781), usually abbreviated into *Frère Come*. He was a monk of the order of St. Francis, and was given a special dispensation to practise surgery among the poor—at first general surgery, but later he restricted himself practically to stone-cutting.

He established, in 1753, a hospital for stone in Paris, where some 1000 patients were operated upon by himself or his nephew. He was said to have had 316 cures out of 330 consecutive cases.

The poor were treated free, and were often given a sum of money on leaving.

The hospital was supported by the voluntary contributions of the richer patients.

*Frère Come's* chief contribution to the technique of the operation of lateral lithotomy was the invention of the "lithotome caché", by which the incision of the neck of the bladder and prostate could be more accurately determined.

At a later date *Dupuytren* introduced the "bilateral lithotome caché".

After the time of *Frère Come* the operation of lithotomy was taken up seriously by qualified surgeons, and from being looked upon as a procedure beneath the dignity of the orthodox profession, it came to be regarded as one of the most important of surgical operations. In the first half of the nineteenth century in most of our hospitals the surgeon who had a lithotomy case took precedence over his colleagues on the operation day.

§

Suprapubic lithotomy was first performed by *Pierre Franco* in 1560. He was operating upon a boy, æt. 2, and failed to extract the stone by the perineal route. Urged by the parents to get the stone away at any risk, he pushed it forcibly upwards against the lower part of the abdominal wall and cut upon it, pressing it out of the wound. The patient recovered after a serious illness lasting three months, and *Franco* never repeated the procedure.

Suprapubic lithotomy was very slow in making headway because of the fear of wounding the peritoneum. This was especially likely (*Swift Joly*) under the struggles without effective anæsthesia, when the contraction of the recti and other abdominal muscles would force the peritoneum into the area of incision.

*Stone-crushing*—lithotripsy, i.e. the crushing of a stone within the bladder.

(*Ammonius*, in 200 B.C., broke up a stone with chisel before extracting it during a lithotomy.)

Lithotripsy must have been performed in prehistoric times, for *Celsus*, at the beginning of the Christian era, refers to it, and recommends it, but does not describe any method.

In the literature are two classical instances of people who have operated upon themselves for lithotripsy:

(1) A monk of *Citeaux* inserted a hollow tube into his bladder, through which he passed an iron rod on to the stone, struck the rod with a hammer and splintered the stone.

(2) *Major Martin*, of *Lucknow*, in 1783, passed a tube into his bladder, and introduced through it a file made of the end of a knitting needle; with this he rubbed the outer surface of the stone away at many sittings, sometimes twice a day, and often in public, until his symptoms disappeared. It is reported, however, that he died of stone in *Calcutta* in 1800.

*Gruithuisen*, a Bavarian surgeon, in 1813 published his method, and was probably the first really to practise lithotripsy, though there is no evidence that he actually used the instrument upon a living patient.

His instrument was a straight hollow tube, through the centre of which was conveyed a gimlet with a lance-shaped point. Between the gimlet and the wall of the tube a wire of brass was passed in the form of a loop, by which the stone was snared and held firmly against the end of the tube, while the gimlet was rotated until the stone was pierced.

*Leroy* (d'Etoilles), in 1822, invented an instrument consisting of two straight hollow tubes, between which slid four pieces of flexible wire, whose inner ends were fixed together by a button. By projecting the wires a cage was made in the bladder, in which the stone was caught and held firmly against the end of the inner tube, while

a gimlet was passed along the lumen of the inner tube and bored a hole in the stone by rotation.

It was practically a re-discovery of Gruithuisen's invention.

Amussat, in 1822, introduced an instrument which pulverized the stone by combined pressure and friction.

This was the pioneer of the present-day lithotrite.

At a Commission appointed by the French Academy of Surgery Amussat's instrument proved too weak to crush a stone in the cadaver, while Leroy's instrument was successful.

On January 13th, 1824, at the Necker Hospital, Paris, Civiale gave the first public demonstration of lithotrity, with success. His instrument was a trilobed pincers. It consisted of two metal cylinders sliding one inside the other, the inner having three branches hinged to its distal end. On projecting the inner tube into the bladder the three branches separated, and on withdrawing it into the outer tube the stone was caught between the three branches and fixed. A gimlet was then passed down the inside of the inner tube and perforated the stone.

Leroy now commenced a bitter controversy with Civiale, alleging that the latter had merely filched his idea. In both the object was to fix the stone over the end of a tube and perforate it with a gimlet.

In reality Gruithuisen should take precedence over both Leroy and Civiale.

The next advance was to drill the stone with holes in various directions so that it could be finally readily broken up by the "trilobe". This required a drill and drill bow, the latter being shaped like a fiddle bow, and with it the drill was rapidly rotated. Civiale used this instrument for twelve years with some success, though other surgeons found it too difficult and painful, on account of the frequent releasings and re-graspings of the stone which it necessitated.

To obviate this the next improvement was, once the calculus had been fixed in the vice, to scoop out the interior of the stone until it was a mere shell which could be broken up—*excentric lithotrity*—the stone being destroyed from within outwards.

The great difficulty was to remove the shell after being broken up.

*Concentric lithotrity*, i.e. the pulverizing of the stone from the periphery towards the centre: The stone was grasped lightly in a tribladed vice, the inner surfaces of the blades being roughened. By fixing a drill into the stone it was rotated against the roughened blades and its periphery gradually worn down. It proved too painful a method for practice.

*Crushing the stone.*—Leroy was the first to use the screw and vice in lithotrity, and in 1825 he introduced

an instrument on this principle. On attempting to use it it proved too weak and broke, and Leroy continued to pulverize his calculi by drills.

Jacobson, a Danish surgeon, in 1829 introduced his articulated stone-crusher. He was the first to show practically the strength of crushing that could be obtained by screw action.

"Percussion" of the stone: Attempts were now made to break the stone by percussion, and the first to be used satisfactorily for lithotrity was Huerteloup's percussor, introduced in 1823.

This was the forerunner of the modern lithotrite, and when closed resembled a curved catheter. It had two blades, a larger female in which slid the smaller male blade. When the stone was grasped between the blades the female blade was securely fixed by a screw to a vice fixed to the operation table, so as to prevent it being forced against the bladder-wall when its outer end was struck with the hammer or "percussor". It required a special table.

As it took much time to fix the female blade to the vice on the operation table each time the stone was seized Huerteloup dispensed with this vice, and fixed a powerful handle to be held firmly by an assistant and so take up the shock of the percussion.

As the shock of percussion hurt the patient, crushing by pressure of the hands was then tried, but it was found that when the stone gave way under the crushing force the blades came together too abruptly and jerkily, so that there was risk of injury to the bladder.

To avoid this, "screw-pressure" was next introduced, so that the blades could be approximated steadily.

This compressor was at first detachable. Touzay's compressor was introduced in 1832.

The next improvement was to incorporate this screw compression in the instrument itself, as in modern lithotrites.

The earliest lithotrite in which this was accomplished was made by Salt, of Birmingham, and was used by Dr. Hodgson at the Birmingham General Hospital in 1825; the result of the operation is not stated.

The final improvement was the device introduced by Weiss, of London, by which the sliding action of the male and female blades could be converted into a screwing action once the calculus had been seized between the blades.

This brings us up to the modern instrument, e.g. Bigelow's lithotrite.

After all crushing operations, up to this date, the fragments were left in the bladder to be passed naturally.

Prior to 1878, when Bigelow introduced the operation of litholapaxy (stone-evacuation), i.e. the crushing of the stone and the evacuation of the fragments at one sitting

under anæsthesia, the fragments were usually left in the bladder to be passed naturally.

But so long ago as 1832 Huerteloup had, after crushing a stone, washed out the fragments through a large-eyed catheter with a syringe, and Philip Crampton, in Dublin, had employed a suction apparatus to remove the fragments.

Sir Henry Thompson, 1820 to 1904, Surgeon to University College Hospital, the most famous of the English lithotritists, had studied under Civiale in Paris in 1858. He acquired an extensive practice in vesical calculus, and in 1863 removed a calculus successfully by crushing from King Leopold I of Belgium, while in 1872 he operated upon the Emperor Napoleon III, who was then in exile in England, but unsuccessfully.

Mr. J. T. Clover, the anæsthetist and inventor of the well-known Clover's inhaler, administered the anæsthetic to many of Thompson's patients, and after observing many lithotrities he, in 1866, introduced his "evacuator", consisting of a rubber bulb with a glass trap to catch the fragments of stone as they were washed out through a large-bore slightly curved catheter, with a large eye. This instrument was the prototype of all modern evacuators. Thompson used Clover's evacuator after several of his lithotrities, but never made it a routine, and it was left to Bigelow, in 1878, to make the epochal advance of advising that in all crushings of calculi the operation should be completed and all the fragments evacuated at one sitting under anæsthesia. He called his procedure litholapaxy, *i. e.* "stone-evacuation".

Bigelow's litholapaxy is now the recognized procedure for the treatment of stone in the bladder by crushing.

Vesical calculus is now becoming comparatively rare in this country, and the opportunities of becoming expert in lithotripsy are diminishing. In the future, for the surgeon who has only occasional opportunity of treating vesical calculus, suprapubic lithotomy will probably prove the safer method.

A. H. BURGESS.

### ACKNOWLEDGMENTS.

*The British Journal of Surgery—The Nursing Times—Charing Cross Hospital Gazette—Guy's Hospital Gazette—Magazine of the London Royal Free Hospital—Middlesex Hospital Journal—St. Mary's Hospital Gazette—St. Thomas's Hospital Gazette—The Speculum—The Student—University College Hospital Magazine—King's College Hospital Gazette—University of Toronto Medical Society Magazine—Clinical Journal—East African Medical Journal—The General Practitioner—The Hospital—Bulletins et Mémoires de la Société Médecine de Paris—L'Echo Médicale du Nord—The Medical Forum—The Medical Press and Circular—Medical Times and Long Island Medical Journal—Post-graduate Medical Journal—Reale Società Italiana D'Igiene—Revue Belge des Sciences Médicales—Archives Hospitalières.*

### SURGICAL APHORISMS.

(Continued from p. 188.)

13.

Operating by the clock is the last fatuity of which a surgeon should be guilty. Every operation presents an individual problem which requires its own time for solution.

14.

Routine has a very large place in the technique of the operating theatre, and by its smoothness the efficiency of the team is to be judged. The beginning and end of the operation itself should also be usually a matter of routine, but in the middle is the climax, when the patient's body should be allowed to assert its individuality, and routine must give way to judgment.

15.

There can be no "routine" in the surgical treatment of any disease, and the surgeon who talks of his routine has probably substituted complacency for judgment. Complacency in ordinary life is often a harmless foible: in surgery it is always a vice.

16.

It may be thought that surgery which does not cure is surgery that has failed. But some of surgery's greatest triumphs are obtained in the field of palliation. Even if the result is merely the conversion of a painful death into an easy one, a measure of success has been achieved.

17.

It is easy to sentimentalize over the "romance of surgery". But how often is it appreciated that the thrills of the explorer are the surgeon's lot? Every stroke of the scalpel is opening up a realm where no human eye has ever looked before.

18.

Statistics of post-operative mortality are commonly held to justify or damn an operation. But the fact that patients don't die when an operation is done does not thereby justify its frequent performance. The question "is it necessary?" honestly answered will eliminate much surgery that is safe but superfluous.

## 19.

It must also be remembered that some patients do die if an operation be not done, so that the possible *non-operative mortality* should also be considered, though usually it is ignored.

## 20.

Whether King Edward VII's appendix was or was not removed in 1906, is of no importance in 1933. The junior dresser is familiar now with principles of diagnosis and treatment which were then hidden even from a surgeon to the King.

## 21.

General anæsthesia has been so good in this country that other methods have been unduly neglected. Surgeons in some other countries have been driven by necessity to develop the technique of local anæsthesia. We still have much to learn from them.

## 22.

Skilled anæsthetists are not numerous enough, and it rests with the surgeons to demand an ever-rising standard of anæsthetic administration.

## 23.

Surgery in good hands is now attended by comparatively small risks, and the chief danger lies in pulmonary complications. Not until ether has joined chloroform in the list of drugs that are but seldom used, will this risk be reduced to a minimum.

GEOFFREY KEYNES.

(*To be continued.*)

## SOME PRACTICAL POINTS IN INTRAVENOUS PYELOGRAPHY.

**I**NTRAVENOUS pyelography has supplied us with a valuable asset to our diagnostic armamentarium.

Until recently the only method of investigation of the kidney, pelvis and ureter has been by cystoscopy and ureteric catheterization, with its attendant discomfort and need for specialized skill on the part of the investigator; intravenous pyelography has overcome these two difficulties.

At this stage, therefore, a few practical points, both

as to the technique of carrying it out and the interpretation of the findings, may be of interest and possibly assistance to those who are as yet unacquainted with the means whereby the best results may be obtained from this method of investigation.

### INDICATIONS FOR USE.

The aim, broadly speaking, is to determine the shape, position and excretory power of the urinary tract; from these physical signs it is possible to diagnose the pathological condition or conditions present.

Until recently these investigations have been carried out by cystoscopy and retrograde pyelography. Intravenous pyelography, on the other hand, can be carried out quite simply without the use of a cystoscope, thus saving the patient much discomfort, and with no further apparatus than a 20-c.c. syringe and the type of X-ray apparatus now available even in the more remote corners of the world.

In cases where tuberculous disease of the kidney is suspected, routine retrograde pyelography is inadvisable, but in these cases a valuable aid to diagnosis is often found in an intravenous pyelogram.

### CONTRA-INDICATIONS.

Undoubtedly the main contra-indication to the universal use of intravenous pyelography in all and every case where the urinary tract is suspected of "being in trouble" is the question of expense. The cost of this form of examination would be approximately 30s. to £2 in materials alone, when taking into consideration the cost of the X-ray films, the uroselectan and wear and tear of the X-ray apparatus; the cost of an instrumental pyelogram would be about 7s. 6d.

With the introduction of intravenous pyelography the examination has frequently been carried out where the clinical history is even suggestive of a renal origin, and again often in cases where a careful history and examination would have shown that the symptoms really bore no relation to the urinary tract whatsoever.

### PREPARATION OF THE PATIENT.

The patient is prepared as for a routine X-ray of the urinary tract, either a two- or one-day preparation. A useful point in these cases is the question of time, especially in children—the earlier in the morning the X-ray is taken, the less liable is there to be much wind present in the intestines, the great enemy of successful urinary tract X-rays.

For adults, castor oil is frequently used, 1 oz. two



days and one day before the examination. It often happens that patients cannot take castor oil; in these cases it is well worth trying pil. calomel cum colocynth after tea the day before the X-ray; on the other hand, any purge that suits the patient is quite good, the essential point being to ensure an action of the bowel during the night before the X-ray, but without the production of wind.

In children, purging causes much wind, and good results are obtained by ensuring a normal action of the bowel, and then keeping the child playing and running about from the time of waking until meeting the radiologist.

It is essential for good, contrasting X-rays that there should not be active diuresis at the time of examination, which is best avoided by curtailing all fluids for about six hours previously.

There are many substances now on the market, all having their respective merits, such as abrodil, per abrodil, pelvirin and uroselectan B (D. 40). Personally I have, for two years, been using uroselectan B supplied by Messrs. Schering; it has given excellent results.

#### METHOD OF ADMINISTRATION: DOSAGE.

Uroselectan B is put up in ampoules of 20 c.c., which is the average dose for an adult, children up to 10 years of age a rough gauge is 1 c.c. per year, giving a child of 3, 5 c.c.

The solution should always be warmed to body temperature before injection. Any convenient subcutaneous vein may be used—in adults one of the veins in the ante-cubital region; these are equally good for children up to the age of 4 or 5; below this age any vein which is suitable must be found, the two useful ones being the saphenous or a scalp vein.

In children, if there is any doubt as to the child remaining quiet during the tedious minutes, it is best to give nitrous oxide and oxygen anaesthesia for a few minutes for this reason: if there is an indication sufficient to warrant an intravenous pyelogram in a child, it is of adequate importance that the pyelogram should be done successfully at the first attempt. Among children one generally finds that the psychological trauma of a three minutes' anaesthesia is considerably less, and certainly not so lasting as the pain of the intravenous injection.

The type of needle and syringe used is very important. The needle should be of the short, bevelled variety, which minimizes a possibility of injuring the opposite side of the vein; the size which is found most suitable for both children and adults is 20 B.W.G. One is very

often tempted to use a smaller needle, thereby avoiding the pain of a vein puncture, but this is always found unsatisfactory. The uroselectan is so viscous that much prolonged pressure is needed for the injection, often causing jerky movement of the needle, sufficient to injure the vein or even pull the needle out. The syringe may be of any variety to hold 20 c.c., but should be of such a pattern as to be held quite still and comfortable during the 2 to 4 minutes of the injection. The type found most suitable for this is one with the needle placed eccentrically near the side of the barrel, the latter then resting gently on the patient's arm and steadying the syringe during the injection.

The time taken for the injection should be between 2 and 4 minutes for 20 c.c.—too rapid injection causes much pain.

Using 20 c.c. of solution, the size of needle suggested and an average vein, the conditions found will be an optimum—that is, the uroselectan will be injected by gentle pressure on the plunger at a speed which will produce mixing with the blood in a concentration least liable to cause pain or any other ill-effects.

Immediately after injection the patient should be placed in a Trendelenburg position, about 30°; this gives much better shadows of the renal pelvis and ureter. During the later X-rays the patient is placed in a reverse Trendelenburg position or even flat, which fills the lower portion of the ureter and bladder.

#### ILL-EFFECTS.

1. Should the uroselectan be injected outside the vein, this accident is soon noticed by the subcutaneous swelling round the vein—no harm will follow provided the injection is stopped; even as much as 5 c.c. has frequently been seen in the subcutaneous tissues without untoward results.

2. Pain of a severe character, coming on after about 10 c.c. have been injected, is present to a varying degree, but is seen in about 25% of cases: the whole arm and shoulder feels as if gripped in a vice. Rarely does this spread into the chest, occasionally, however, giving a feeling of tightness. This can be minimized by decreasing the rate of the injection, but is merely made worse by hurriedly injecting the remaining 10 c.c. or so to "get things over quickly". All that can be done is to reassure the patient and continue the injection at the optimum rate. The pain passes off about 2 to 3 minutes after the injection is completed.

3. General faintness or even sickness often occurs, partly due to the injection and partly due to the vein puncture (an unsteady needle in the vein); this is never of a serious nature and yields to usual remedies.

Radiograms are then taken at intervals which vary with the pathological condition suspected. As a guide the following are suggested:

Ten minutes after injection, renal pelves and upper portion of ureters.

Thirty minutes after injection, renal pelves and whole course of ureters and bladder.

Forty-five minutes after injection, similar pictures to 30 minutes, but the bladder should be emptied immediately before the pictures are taken so as to remove the bladder shadow from its position, which is obscuring the lower end of the ureters.

If no shadows are seen 45 minutes after the injection, further X-rays are taken 6 or 12 hours later; this is often required in such cases as renal dwarfs with congenital hydro-ureters and hydronephroses. Some authorities attempt to shorten the time over which the X-rays are taken by giving urea by mouth round about the time of the intravenous injection; this serves the purpose of shortening the time and possibly giving good concentration, but it is doubtful whether the interpretation of the result is so efficient, so that this method is not commonly used.

#### CONCENTRATION.

It is often thought that good concentration in a pyelogram means a good secreting kidney; this is not the whole story. Good concentration depends also on another factor—obstruction; good concentration is often best seen where a ureteric calculus is causing a temporary "hold-up" of urine in the renal pelvis. Again, a much better pyelogram shadow is obtained when the patient is in a Trendelenburg position than when in the reversed position. Therefore, in assessing the concentration, there are three main factors to be considered: the excretory power of the kidney, the presence of obstruction, and the position of the patient.

#### SHAPE.

This is the most valuable asset in intravenous pyelography, giving almost diagnostic physical signs in such conditions as hydronephrosis and hydro-ureter, new-growths of the renal pelvis and cortex, tuberculous disease of the kidney and often in diverticulum of the bladder.

#### COMPARISON OF THE TWO SIDES.

A difference between the concentration on the two sides in the absence of obstruction is of value in assessing

the excretory power of one kidney *as compared with the other*.

#### DIAGNOSIS OF DOUBTFUL SHADOWS.

Shadows suggesting stones of doubtful position in relation to the kidney or ureter can often be accurately identified by the pyelogram or ureterogram being seen to overlie the shadow seen stereoscopically. Finally, stones in the renal pelvis not shown on a plain film may often become more obvious after intravenous pyelography.

#### FALLACIES.

Ureterograms show varying appearances when seen in the consecutive X-rays. Deformities suggesting strictures are frequently seen at the pelvi-ureteral junctions and elsewhere in the ureter, but in interpreting these, attention should always be paid to the presence or absence of the deformity in the serial radiograms: if the deformity persists, then it is most probably pathological, otherwise it is of no diagnostic importance, being due to a wave of contraction in the ureter.

Pyelograms are occasionally misleading, inasmuch as they do not give an accurate outline of the renal pelvis such as is sometimes seen in an early hydronephrosis due to an intra-pelvic obstruction; also in very large hydronephroses the excretion may be small, and yet when diluted with the contents of the dilated pelvis, are of such a concentration that the shadow is not seen in X-rays.

Finally, intravenous pyelography can be well recommended from many points of view, especially under circumstances when one might consider whether to submit the patient to the discomfort of an instrumental pyelogram. There are, it is true, fallacies against which one must always be on guard, but with experience in interpreting the findings and thus knowing when an instrumental pyelogram should be used in addition, it is found that this form of investigation can be used as a simple and yet most useful aid to diagnosis.

In conclusion, these few notes serve as a brief outline of a method of carrying out intravenous pyelography and of the interpretation of the results; in the event of them being of assistance to those who are wishing to carry out this method for the first time, or to add, even in a small way, to the experience of those who are well acquainted with this examination, they will have served some useful purpose.

W. E. UNDERWOOD.

## THE HISTORY OF THE HEDGEHOG'S ROSARY.

(Continued from p. 168.)

By now, the mid-point of the last century, the advances are so rapid and on so many fields that it becomes impossible to describe them simultaneously, and it will be necessary to study them consecutively.

First let us consider the continuation of the history of leuco- and erythropoiesis.

You will remember that in 1840 Reichert had shown the presence of nucleated red cells in the liver. Five years later Kölliker actually demonstrated the transition stage between the nucleated and non-nucleated red blood-corpuscle in the liver, but he suggested that their progenitors were splenic leucocytes. And in 1857, when he observed nucleated red blood-corpuscles in the newborn, particularly in the spleen, he thought that blood-formation took place in the spleen as well as the liver, and might continue in infancy. It is necessary now to go back for a short while and consider briefly the history of the spleen, which I have left alone, for it has been treated carefully by McNee (39) in his Lettsomian Lectures. Stukely (40), in 1722, delivered the Goulstonian Lecture on the spleen and its functions. He considered that its main function was that of a reservoir, which could contract at will and so control the amount of blood in the circulation. Then with Hewson's observations, the next is that of Kölliker, who noticed the disintegration of red cells, and regarded that as the chief function of the organ.

Kölliker had examined the bone-marrow, and considered that it consisted of fat and medullary cells, the functions of which he could not arrive at. Then in 1868 came a bombshell. Neumann (41) demonstrated that mammalian red corpuscles arise throughout life from colourless nucleated elements in the bone-marrow. The reception of this epoch-making discovery varied enormously. Bizzozero (42) and Claude Bernard (43) received it with delight. Robin (44), a Frenchman, felt that Neumann was encumbering science with his new theory, and tried to repudiate it by the statement that since, logically considered, marrow-cells and leucocytes are essentially different in kind, there can never be a question of bone-marrow erythropoiesis.

To understand the views of Hayem (45) and Pouchet, it is necessary to retrace our steps again and study the history of the blood-platelet.

These tiny bodies were first seen in 1842 by Donne (46), but the first careful description is by Max Schultze (47) in 1867, who considered them as a normal constituent of

the blood and that they may arise from degeneration of granular leucocytes. Many others saw them, and Birch-Hirschfeld (48), in 1873, suggested that bacteria might develop from them. Osler (49), while working with Burdon Sanderson, recognized them, and was the first to portray them in a vessel in 1874, but offers no explanation as to where they arose, and rather tends to the bacterial origin. Hayem, on the other hand, described them as "hæmatoblasts", and regarded them as the origin of the red cells, that they arose from the protoplasm of the lymph leucocytes, and through growth became microcytes, and hence, after assuming a biconcave shape, function as definite erythrocytes; others, like Arnold (50), felt that they arose from fragmentation of the erythrocyte.

In 1894 Wlassow (51) showed that thrombi consisted of masses of platelets, and in 1910 Wright (52) suggested the megakaryocyte as the primitive cell.

The third of the great advances took place in 1876 with the advent of specific staining. Up till this time, histology had been performed for the most part with unstained or injected material, usually with carmine, and it was by an accident that Joseph Goralach, in 1854, while using the injection method, found that nuclei were stained by the dye. Accordingly various methods were employed, most of them very heroic to our way of thinking. Thus Ranvier's method, which was introduced in 1867 and enjoyed great popularity, was as follows: Tissue was boiled in a mixture of creosote and acetic acid, then allowed to dry completely, then macerated in acetic acid, and finally stained in dilute ammonium carminate and picric acid. Hæmatoxylin was introduced by Böhmer in 1865, employing alum as a mordant, as dyers had done for many years. Some ten years earlier an English chemist, Perkins, had been experimenting with coal-tar products, and in 1865 introduced the first aniline dye, mauveine; and very soon after this all the organic chemists in Europe were making new and wonderful colours, in spite of William Morris's dictum that "these hideous colours could never be of any value". At this time there was a medical student at Strasbourg who was a sore trial to his teacher; he would not work, at least not at the subjects of the curriculum, and was far happier dabbling with the new dyes, and trying to find out why the organs of persons suffering from lead poisoning were preserved so well after death. His name was Paul Ehrlich (53), and two years after qualifying he commenced his method of *Farbenanalyse*. In the same year he discovered the mast-cell, or basophil, by staining with dahlia; a few years later the eosinophil and neutrophil, and so introduced his classification of the leucocytes, which is in essentials that employed to-day. The stain he used was his

triacid mixture, which necessitated heat fixation, and though a splendid stain for granules, was an indifferent nuclear stain, and frequently did not stain at all. The methylene-blue-eosin compound stain which is employed now with Leishman's modification was first introduced in 1887, but it was not until 1891, when Romanowsky (54) devised the method of methyl alcohol fixation, that it became at all tractable.

Vital staining had been employed spasmodically, but it was not until Israel and Pappenheim (55) introduced neutral red that it was much employed in hæmatology, and this, together with Thoma's (56) method of using a dried alcoholic layer of stain (1899), evolved the modern technique which has been employed to such great advantage by Sampson (57), Cunningham (58) and Sabin (59).

The clinical applications of hæmatology lagged far behind scientific inquiry, and by the early part of the nineteenth century, although the chemists were discovering and assessing innumerable elements in the blood, yet the study of formed particles was hardly considered.

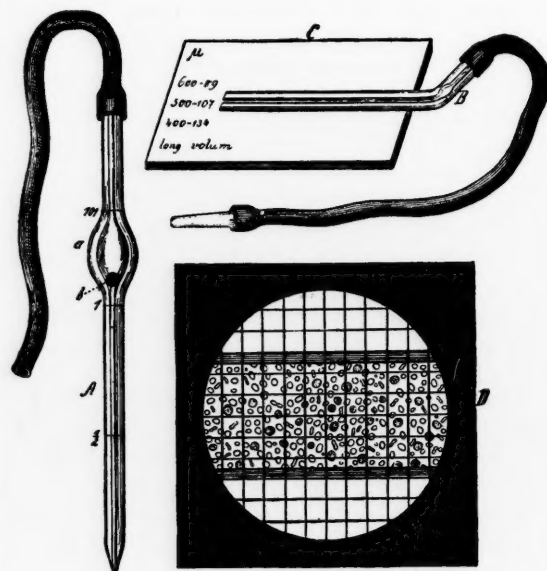
The first to attempt to draw accurate deduction from the blood in different diseases was Gabriel Andral (60), who was a most careful worker and a staunch supporter of Louis' campaign against ruthless blood-letting. His most famous work is his *Clinique Médicale* (1829), which was the first of the kind made famous by Trousseau, Dieulafoy and others. In 1843 appeared his *Essai d'hématologie pathologique*. His method of investigation was to take the blood, defibrinate a portion and determine the percentage of dried fibrin; allow another portion to clot; evaporate the serum and so determine the percentage of solid matter, then dry the clot, and by deducting the amount of fibrin estimated to be in it assess the percentage of red cells (and incidentally white cells, which he ignores) in the blood. The methods were performed on a great number of controls and also animals, and a series of normals were obtained. From his figures he thought he could separate primary anæmias (*anémie spontanée*) from those secondary to a loss of blood. He also is the first to observe that there is a true anæmia in those suffering from lead poisoning, which was confirmed by Malassez (61) in absolute figures in 1874.

Although these ideas were sound enough in their way, yet they were, by necessity, complicated and not over accurate, and it is not until 1852 that clinical hæmatology as we understand it now began. In that year Karl Vierordt (62) devised a rather complicated method for counting the red cells with a microscope, and his first estimation on his own blood gave five million cells per cubic millimetre as the result; the method was

improved a little by Welcher (63) and Cramer (64), but the honour of making it a practical method must go to Malassez and Potain.

Malassez was Potain's intern in 1867 and was intensely interested in the blood, and used a modification of Cramer's method for estimating the erythrocytes, of which one of the great difficulties was the dilution of the blood; accordingly Potain (65) devised a diluting pipette identical with that employed to-day.

In the illustration of Malassez' apparatus (66), A is the Potain diluting pipette and C is the "counting



MALASSEZ' APPARATUS.

chamber", which consisted of a piece of capillary tubing of known bore, into which the diluted blood was drawn; the figures at the side of the slide indicate the volume of a known length of the tube, *i. e.* a length of 600 $\mu$  contains 89 c.mm., etc. Then a calibrated eye-piece micrometer was used and the number of cells in 600 $\mu$  were counted; from this the absolute figure could be obtained. D is an illustration of the appearance under the microscope.

Hayem (67) simplified it by using a cell of known volume instead of the capillary tube, and Gowers (68) introduced the method of ruling the squares on the counting chamber instead of using an eyepiece micrometer. Since then the main advance has been in the accuracy of the ruling and manufacture of the cell.

Obviously from this the numeration of the leucocytes followed, and Thoma (69) in 1880 employing dilute acetic acid as a diluent, also to destroy the red cells,



estimated them as varying between six and ten thousand per c.mm.

Hæmoglobin was discovered by Funke (70) in 1851, and the first clinical hæmoglobinometer was devised by Malassez (71) in 1876. It consisted of a prism of picrocarminate of ammonium which could be moved up and down until it matched the colour of the diluted blood, and the quantity of hæmoglobin was then read off from a scale; Gowers's method (72) was introduced two years later, and since then various devices of greater or less complication have been introduced.

The coagulation time was introduced by Vierodt (73) in 1878, who drew a fine white horse-hair up and down a capillary tube containing blood, and when it adhered the time was taken; he observed that his estimations were increased in purpura, hæmophilia and leukæmia. Wright (74) introduced his method in 1892.

We noticed that Leeuwenhoeck measured the blood-cell with reasonable accuracy, and this was repeated at intervals through the centuries, but in 1863 Welcher (75) devised an ingenious method for determining the volume of the red cell. He made models in plaster from his measurement of the erythrocytes, and then weighed these and determined the average volume as being  $72\mu$ —a low reading. Blix and Hedin (76) devised the hæmatocrit in 1890, and Capps (77) wrote his classical paper on the size of the red cell in 1903.

Reticulocytes were first recognized by Howell (78) in 1890, and Hawes (79) made a careful study of them in 1909, but they were little regarded, and it was not until Whipple and Robschert-Robins were assaying the value of various substances in hæmorrhagic anæmias that their value was recognized.

The blood groups were first recognized in 1900 by Landsteiner (80), and the danger of isoagglutination in transfusion was first pointed out in 1907 by Hektoen.

It may have seemed strange that all this time I have scarcely mentioned a blood disease or the moment when they were recognized by one of the elaborate laboratory methods here described, but the fact remains that almost all the diseases of the blood were first discussed without the aid of any of these devices.

#### PERNICIOUS ANÆMIA.

In 1822 James Combe (81), an Edinburgh practitioner, described before the Medico-Chirurgical Society of Edinburgh a case of anæmia which is a typical case of the type which we now call Addisonian.

The following case has been already brought under the notice of the Society by my distinguished preceptor and friend Dr. Kellie, in his paper on the Pathology of the Brain, as affording a striking corroboration of his views regarding the circulation within the head in

health and disease. It appears to me entitled to still further attention, and to a more minute detail, as exhibiting a well marked instance of a very peculiar disease, which has excited little attention among medical men, and which has been altogether overlooked by any English author with whose writings I am acquainted. Unfortunately, however, such is the allowable diversity of opinion on most medical subjects, that it is very possible the following case may be viewed in different lights, and receive different appellation; and while some may be disposed to regard the peculiar characteristic from which it derives its denomination of Anæmia, as constituting a morbid state *sui generis*, others may consider the defect of the red circulating mass as an accidental and occasional circumstance, denoting some peculiar change in the assimilative powers, the primary stages of which we have been unable to detect. Doubtful myself which of these opinions may be the most correct, I shall do little more than state correctly the phenomena of the case, and minutely the appearances presented on dissection. One remark only I may at present offer, that if any train of symptoms may be allowed to constitute Anæmia a generic disease, the following may be considered an example of it in its most idiopathic form.

It was in the month of July, 1821, that I was first consulted by Alexander Haynes, the subject of this case, on the nature of his complaints. Even at that time I was much struck by his peculiar appearance. He exactly resembled a person just recovering from an attack of syncope; his face, lips and the whole extent of the surface were of a deadly pale colour; the albuginea of the eye bluish; his motions and speech were languid; he complained much of weakness; his respiration, free when at rest, became hurried on the slightest exertion; pulse 80, and feeble; tongue covered with a dry fur; the inner part of the lips and fauces were nearly as colourless as the surface. He says that his bowels are very irregular, generally lax, and that his stools are very dark and fetid; urine reported to be copious and pale; appetite impaired; of late his stomach has rejected almost every sort of food; has constant thirst; he has no pain referable to any part, and a minute examination could not detect any structural derangement of any organ. He is forty-seven years of age; was born and has spent the greater part of his life in the country, engaged in agricultural employments; for a few years has been servant to a corn merchant, where his duties are neither laborious nor unhealthy. He is married, and has no family; leads a regular and temperate life; has enjoyed perfect health since childhood, and has never been blooded. He was advised to use some medicine to correct the state of his bowels, to confine himself to a light diet, and to take gentle exercise.

I saw him again in a few days, and found him nearly in the same state. His stools were consistent, dark and very fetid; urine pale and copious, depositing scarcely any sediment. His wife tells me that it is about two months since he began to complain, but not until his friends had observed his altered complexion; he then lost strength and said his head troubled him. Of this last symptom, however, he has no distinct recollection; his feet became edematous, and his appetite failed him. My attention was again drawn towards the skin, which was of the same waxen colour, soft and delicate, the cellular texture about the eyes and breast being slightly distended with watery effusion. The pulse was feeble and easily excited by any motion. The veins on the arm and neck were delicate, and could be felt on making pressure, but the colour of the blood did not appear through the skin. It was evident that the patient laboured under great debility, probably from a defective and languid circulation. Some tonic medicines, a mild nutritious diet, with wine were prescribed, and I was inclined to hope for a favourable termination to the case.

About a fortnight after this he was evidently better, was stronger and able occasionally to attend to his duty; but I was not at any time confident that there was any change in his complexion. He perspired freely on any exertion, but neither the face nor lips ever acquired any additional tinge. At one time, from the state of his stools and urine, I was led to suspect an affection of the liver; at another from the thirst, great flow of urine (exceeding the liquid ingesta), and peculiar state of the skin, I was apprehensive of diabetes; but none of these indications remained long stationary.

In September, and occasionally afterwards, he was visited by Dr. Kellie, and Dr. R. Hamilton, from whose able advice I trusted he would derive much benefit. A very minute examination of the case, and a careful consideration of its history, however, scarcely solved the nature of the affection, and its long continuance and inveteracy rendered our prognosis more doubtful.

Towards the end of September he tried the effects of a sea voyage and afterwards drank the waters of a chalybeate spring. He returned

in the middle of October with a loss of flesh and strength, his legs were much swollen, his skin had the same exsanguine appearance, secretion of urine copious, bowels lax and appetite greatly impaired; he was still in good spirits, made no complaints excepting debility, and looked forward to a speedy recovery.

It seems unnecessary to detail at great length the history of this case; for two months after this, it presented no peculiar features in addition to those already enumerated; all the symptoms, however, were aggravated, and the constituents began to sink under their pressure. About the middle of January, 1822, the oedema had extended over his face and upper extremities, and evident marks of effusion into the chest presented themselves. He died in a few weeks with all the symptoms usually attendant on hydrothorax.

James Scarth Combe is for the most part forgotten, and credit for recognition of the disease as an entity is given to Thomas Addison (82), whose description appeared some twenty years later in the preface to his famous account of the disease of the suprarenals.

For a long period I had from time to time met with a very remarkable form of general anæmia, occurring without any discoverable cause whatever—cases in which there had been no previous loss of blood, no exhausting diarrhoea, no chlorosis, no purpura, no renal, splenic, miasmatic, glandular, strumous, or malignant disease.

Accordingly, in speaking of this form in clinical lecture, I perhaps with little propriety applied to it the term "idiopathic", to distinguish it from cases in which there existed more or less evidence of some of the usual causes or concomitants of the anæmic state.

The disease presented in every instance the same general character, pursued a similar course, and, with scarcely a single exception, was followed, after a variable period, by the same fatal result.

It occurs in both sexes generally, but not exclusively, beyond the middle period of life, and, so far as I at present know, chiefly in persons of a somewhat large and bulky frame, and with a strongly-marked tendency to the formation of fat.

It makes its approach in so slow and insidious a manner that the patient can hardly fix a date to his earliest feeling of that languor which is shortly to become so extreme. The countenance gets pale, the whites of the eyes become pearly, the general frame flabby rather than wasted; the pulse, perhaps, large, but remarkably soft and compressible, and occasionally with a slight jerk, especially under the slightest excitement; there is an increasing indisposition to exertion, with an uncomfortable feeling of faintness or breathlessness on attempting it; the heart is readily made to palpitate; the whole surface of the body presents a blanched, smooth, and waxy appearance; the lips, gums, and tongue seem bloodless; the flabbiness of the solids increases; the appetite fails; extreme languor and faintness supervene, breathlessness and palpitations being produced by the most trifling exertion or emotion; some slight oedema is probably perceived about the ankles; the debility becomes extreme. The patient can no longer rise from his bed, the mind occasionally wanders, he falls into a prostrate and half-torpid state, and at length expires. Nevertheless, to the very last, and after a sickness of, perhaps, several months' duration, the bulkiness of the general frame and the obesity often present a most striking contrast to the failure and exhaustion observable in every other respect.

With perhaps a single exception the disease, in my own experience, resisted all remedial efforts, and sooner or later terminated fatally.

In 1872 Biermer (83) of Zurich described fifteen cases, and was the first person to give an account of the blood-findings, and he named the disorder "progressive pernicious anæmia" because, in spite of all therapeutic measures, it progresses without abatement and ends in death.

The first pathological observation was made by William Pepper (84) from Philadelphia, who described the characteristic changes in the bone-marrow, and a year later, in 1876, Cohnheim gave a similar account, although he was unaware of Pepper's work. In the

same year Sorensen (85) maintained that megalocytosis was characteristic of pernicious anæmia, and in 1880 Ehrlich (86) demonstrated the difference between the megaloblast and normoblast, and stated that the former was only found in this disease or in the foetal blood tissues; Laoche (87) in 1883 found that the colour index was constantly high, and in 1884 Lichtenstern (88) described two cases of "progressive pernicious anæmia in tabetics", but he considered that the anæmia was dependent on the tabes, and it was not until 1886 that Lichtheim (89) recognized the real significance of the syndrome of subacute combined degeneration of the cord. In the same year von Mering (90) observed the achlorhydria, and in 1889 William Hunter (91) gave an account of the glossitis, and propounded the theory of gastro-intestinal toxæmia as the ætiological factor. However, the treatment continued to be arsenic and iron, and until 1926 the disease continued to be as progressive as it had been in the days of Combe.

#### PURPURA.

The first account of purpura distinct from that arising during the course of a specific fever was made by Amatus Leusitanus (92) in 1556, who described it as "morbus pulicaris alsque febre".

Of the clinical descriptions of purpura the first was made by Paul Werlhof (93) in 1735. He was one of the leading physicians of the Hanoverian court, and apart from his medical skill was something of a poet. In his description of the disease there is no mention of the familial element which we have come to associate with the type of purpura which bears his name.

#### MORBUS MACULOSUS HÆMORRHAGICUS.

An adult girl, robust, without manifest cause, was attacked recently towards the period of her menses with a sudden severe hemorrhage from the nose, with bright but foul blood escaping together with a bloody vomiting of a very thick extremely black blood. Immediately there appeared about the neck and on the arms, spots partly black, partly violaceous or purple, such as are often seen in malignant smallpox. The sudden loss of strength, and sufficient singular characteristics of this *spotted hemorrhagic disease* being known to me, of which indeed there is only little discussion in medical writings, we forbade venesection. I gave the first day acid remedies and largely nitric, which while they did not help, but enduring continually both hemorrhages from the nose and indeed by vomiting, weakness and by chilliness of the extremities, with a small and most rapid pulse, a more efficient aid was needed; moreover the number of the spots increasing and surrounding completely both of the eyes, the back of the nose and the skin around the mouth and chin, with a livid black color, like marked from bruises. I gave twice hourly in any mixture desired half a drachm of Peruvian bark, adding alternately liquid laudanum of Sydenham four drops. The same day the bleeding from the nose gradually stopped, the vomiting became less, and the next day ceased: no lesions recurred: the spots daily, at the same time with a livid appearance assumed first a very ruddy then pale color, and disappeared the seventh day, so that also the pulse now recovered the normal character of its beat, her strength was nearly restored to its normal

state, although the menses do not appear at the proper time, which is by no means unusual following hemorrhages.

The type of purpura in which abdominal symptoms are marked and which bears Henoch's name was first described by a brilliant English physician, William Heberden (94), and appears in his posthumous *Commentaries on the History and Cure of Diseases*, which was published in 1801.

#### PURPUREÆ MACULÆ.

Some children, without any alteration of their health at the time, or before, or after, have had purple spots come out all over them, exactly the same as are seen in purple fevers. In some places they were no broader than a millet-seed, in others they were as broad as the palm of the hand. In a few days they disappeared without the help of any medicines. It was remarkable, that in one of these, the slightest pressure was sufficient to extravasate the blood, and make the part appear as it usually does from a bruise.

A boy four years old, for several days had swellings rise on his knees, legs, thighs, buttocks, or scrotum. The part affected was not discoloured, and when at rest, was easy, but could not be moved without some degree of pain. Together with these swellings there appeared red spots, sometimes round, sometimes angular, a quarter or half an inch broad, which on the second day became purple, and afterwards yellow, just as it happens from a bruise. The child continued perfectly well in all other respects. These swellings ceased to appear in about ten days; but the red spots continued coming out a few days longer.

Another boy five years old, was seized with pains and swellings in various parts, and the penis in particular was so distended, though not discoloured, that he could hardly make water. He had sometimes pains in his belly, with vomiting, and at that time some streaks of blood were perceived in his stools, and the urine was tinged with blood. When the pain attacked his leg, he was unable to walk; and presently the skin of his leg was all over full of bloody points. After a truce of three or four days the swellings returned, and the bloody dots, as before. These dots became paler on the second day, and almost vanished on the third. The child struggled with this uncommon disorder a considerable time, before he was entirely freed from it.

The first of these boys immediately grew better after being gently purged; the other took a decoction of the bark for several days without any manifest good effect.

Henoch's (95) account appeared in 1874, and though somewhat fuller and laying rather more stress on the abdominal symptoms, yet it adds nothing essential to the succinct account of Heberden.

Denys (96) was the first to recognize that the blood-platelets were reduced in number in this disease in 1887, and in 1889 Robert Koch (97) proposed as an indication of a purpuric state the elicitation of petechiæ after multiple intradermal punctures with a needle. In 1911 Weil described the tourniquet test for capillary resistance, and in the following year Duke (98) observed the lengthened bleeding time.

#### HÆMOPHILIA.

In the *Talmud* (99) there is a dispensation which interdicts circumcision if fatal in two successive families, and there are slight references to what may, perhaps, be hæmophilia in the writings of Hochstetter and Fordyce, but the first careful and accurate description appeared

in 1803 from the pen of a young American physician, John Otto (100). He came of a long line of physicians and was the favourite pupil of Benjamin Rusk. He published his account of hæmophilia when he was only twenty-nine.

#### AN ACCOUNT OF AN HEMORRHAGIC DISPOSITION EXISTING IN CERTAIN FAMILIES.

About seventy or eighty years ago, a woman by the name of Smith, settled in the vicinity of Plymouth, New Hampshire, and transmitted the following idiosyncrasy to her descendants. It is one, she observed, to which her family is unfortunately subject, and has been the source not only of great solicitude, but frequently the cause of death. If the least scratch is made on the skin of some of them, as mortal a hemorrhagy will eventually ensue as if the largest wound is inflicted. The divided parts, in some instances, have had the appearance of uniting and have shown a kind disposition to heal; and, in others, cicatrization has almost been perfect, when, generally about a week from the injury, an hemorrhagy takes place from the whole surface of the wound, and continues several days and is then succeeded by effusions of serous fluid; the strength and spirits of the person become rapidly prostrate, the countenance assumes a pale and ghastly appearance; the pulse loses its force, and is increased in frequency; and death, from mere debility, then soon closes the scene. Dr. Rogers attended a lad, who had a slight cut on his foot, whose pulse was "full and frequent" in the commencement of the complaint, and whose blood "seemed to be in a high state of effervescence." So assured are the members of this family of the terrible consequences of the least wound, that they will not suffer themselves to be bled on any consideration, having lost a relation by not being able to stop the discharge occasioned by this operation.

Various remedies have been employed to restrain the hemorrhages—the bark astringents used topically and internally, strong styptics, opiates, and in fact all those means that experience has found serviceable have been tried in vain. Physicians of acknowledged merit have been consulted, but have not been able to direct anything of utility. Those families that are subject to certain complaints are occasionally relieved by medicines that are inefficacious when applied to others; and family receipts are often of greater advantage in restoring them, than all the drugs the materia medica offers for that purpose. A few years since the sulphate of soda was accidentally found to be completely curative of the hemorrhages I have described. An ordinary purging dose, administered two or three days in succession generally stops them; and, by a more frequent repetition, is certain of producing this effect. The cases in which the most powerful, and apparently the most appropriate remedies have been used in vain, and those in which this mode of treatment has been attended with success, are so numerous, that no doubt can exist of the efficacy of this prescription. The persons who are subject to this hemorrhagic indiosyncrasy, speak of it with the greatest confidence. Deceptions may take place from accidental coincidence; but when a complaint has often occurred, and been almost uniformly fatal without the administration of a certain medicine, and has constantly yielded when it has been given, scepticism should be silent with regard to its utility. Nor should our inability to account for the fact, upon the theory and principles we have adopted, be conceived a sufficient reason for disbelieving it. An attempt to explain the mode of operation of this valuable remedy might give birth to much speculation. As the affection has been attended with mortality, and there is generally a disposition to give relief as early as possible, experiments have not been made with the other neutral salts to learn their comparative effect; nor have medicines been tried whose operation might be supposed to be similar. The prescription being known to the whole family, application is rarely made to a physician, and when it is, it is rather with a view of directing him how to proceed, than of permitting him to make a series of trials and observations which might be at the hazard of the life of the patient. The utility of the sulphate of soda cannot arise from its debilitating effects, since it has been found serviceable when the previous depletion has been great, the strength much exhausted, and the system has evidenced symptoms of direct debility. Perhaps time will elucidate its mode of operation, and some general principles may be developed that may be applied to advantage in restraining ordinary hemorrhages; but reasoning upon what has been discovered to be useful in idiosyncrasies, and applying it to the general



constitution of human nature, must certainly be vague and productive of occasional evil in every case, however, a doubtful remedy is preferable to leaving the patient to his fate. The sulphate of soda has constantly succeeded when administered, but the prescription being in the possession of the Shepard family the descendants of Smith, and the cases that have been attended by physicians not being very numerous, it is impossible to ascertain the various states of the system in which it has been given, or to form any correct conclusions respecting its manner of acting. No experiments have been made on the blood to discover if any or what changes take place in it.

It is a surprising circumstance that the males only are subject to this strange affection, and that all of them are not liable to it. Some persons, who are curious, suppose they can distinguish the bleeders (for this is the name given to them) even in infancy; but as yet the characteristic marks are not ascertained sufficiently definite. Although the females are exempt, they are still capable of transmitting it to their male children, as is evidenced by its introduction, and other instances, an account of which I have received from the Hon. Judge Livermore, who was polite enough to communicate to me many particulars about this subject. This fact is confirmed by Drs. Rogers and Porter, gentlemen of character residing in the neighbourhood, to whom I am indebted for some information upon this curious disposition. When the cases shall become more numerous, it may perhaps be found that the female sex is not entirely exempt, but, as far as my knowledge extends, there has not been an instance of their being attacked.

The persons subject to this hemorrhagic disposition are remarkably healthy, and, when indisposed, they do not differ in their complaints, except in this particular, from their neighbours. No age is exempt, nor does anyone appear to be particularly liable to it. The situation of their residence is not favourable to scorbutic affections or disease in general. They live, like the inhabitants of the country, upon solid and nutritious food, and when arrived to manhood, are athletic, of florid complexions, and extremely irascible.

Dr. Rush has informed me, he has been consulted twice in the course of his practice upon this disease. The first time, by a family in York, and the second, by one in Northampton county, in this state. He likewise favoured me with the following account, which he received some years since from Mr. Boardley, of a family in Maryland, afflicted with this idiosyncrasy.

"A. B. of the State of Maryland, has had six children, four of whom have died of a loss of blood from the most trifling scratches or bruises. A small pebble fell on the nail of a forefinger of the last of them, when at play, being a year or two old; in a short time, the blood issued from the end of that finger, until he bled to death. The physicians could not stop the bleeding. Two of the brothers still living are going in the same way; they bleed greatly upon the slightest scratch, and the father looks every day for an accident which will destroy them. Their surviving sister shows not the least disposition to that threatening disorder, although scratched and wounded. The father gave me this account two days since, but I was not inquisitive enough for particulars."

It was Schönlein, who is also remembered for the variety of purpura which bears his name, who suggested that this disorder should be called hæmophilia.

A. H. T. R.-S.

(To be continued.)

## THE ADVENTURE OF THE PLATINUM BLONDE.

(With apologies to the late Sir Arthur Conan Doyle.)

(Concluded from p. 173.)

I slept soundly, and next day devoted the morning, as usual, to my practice. Shortly after lunch a frantic ring at my bell heralded Mrs. Hudson, very red and agitated.

"Oh, Dr. Watson," she said, "I had to get out of

the kitchen window to get 'ere; its about Mr. 'Olmes."

"What about him?"

"He's being beseeched."

"What?"

"Besearched."

"Talk sense, woman; what the deuce do you mean?"

"He's locked up and can't get out of the attic."

"Oh! besieged you mean?"

"Yes, that's it; that gentleman he 'as staying with 'im is sitting in the study or on the stairs and 'as got the key. I found him shouting at Mr. 'Olmes through the keyhole this morning asking for 'is trousis. And Mr. 'Olmes, 'e shouts out 'No!' and tells me through the back winder that if I go for the police or tell anybody he'll 'arf kill me. But I 'ad to call and see you, I was so put about."

"All right," I said, "you go back, and if Mr. Holmes wants any help he will soon ask for it."

I pondered upon this strange turn affairs had taken, but as luck would have it I had a difficult and anxious afternoon, and only had time to snatch a hurried cup of tea before my evening surgery. I had rung my bell many times and each ring brought in another patient, until I feared the stream would never cease. I rang the last time with no response and had begun thankfully to lock my desk when my consulting-room door opened and in came Lady Yvonne. I looked at her apprehensively.

"Let me see," I said, "your bag is bulging, due no doubt to a bag of chocolates; you have been eating too many and have got toothache or indigestion."

"That fool Holmes!" she exclaimed. "I went round to collect the letters and the landlady told me that Curtis had turned the tables on him."

"Well, Holmes knows what he is doing."

"I must have those letters and you must help me."

I shook my head. "You don't know Sherlock Holmes; he says he doesn't want help and I am sure he can deal with the matter himself; he will send for me if he wants me."

"Do you mean to say you are going to leave it there?"

"Yes."

"What about our agreement?"

"Agreement your grandmother! I'm acting in your interests."

"I thought you might be obstinate," said she, and opening her handbag, she removed the bulge, which proved to be, not a bag of chocolates, but a very useful-looking revolver.

"This makes no noise, my dear Watson, and I am quite a fair shot," she remarked; "please say you will come and help me or I shall have to show you what I can do."



"Look here, my lady," I said, "we must wait until it is dark and nobody is about."

"All right. What time?"

"Two a.m. would do—the only possibility is that Curtis might commandeer another car and give chase. There is a garage at the back."

"If we see another likely car we must disable it. I will call for you here."

I dined, then went into my garage and produced a large coil of strong rope, some string, which I tied to it, and on the free end of the string a leaden weight. These I placed ready in my car. I took no firearms, but a useful-looking club. Punctually at a quarter to two Lady Yvonne drove up. I led the way, driving my own car; the streets were deserted, a mist had arisen, and with engines running quietly we drove down Baker Street, under an archway, and came to rest behind Holmes's house. The situation favoured my purpose, for across the yard was a tall building formerly a warehouse. We stood below Holmes's attic, and after several low whistles I gave up the attempt to attract his attention. Her ladyship, however, was not so easily defeated, and putting both index fingers in her mouth, she took a deep breath, and gave vent to a piercing whistle which would have done credit to a railway engine. The attic window lit up and Holmes's head appeared, seen very dimly in the mist.

"Have you got them?" called my lady softly.

"Yes," came through the gloom.

"Drop them, then."

"Not yet. I am not finished with my lodger yet."

"Confound the man," said her ladyship. "What's the matter with the fool now?"

"He wants to deliver it in person—he is very conscientious," I explained.

"Pig-headed I call it. What can we do—smoke him out?"

"We don't want the fire-brigade here; wait a minute," and taking my rope from the car I lifted up a heavy grating which gave access to the basement of the warehouse. Slithering down, I landed on my back on the floor, which was covered with a thick layer of green slime. I felt my way across the dark cellar to the stairs, and went up until I arrived outside on a small platform formerly used for hoisting goods to the top floor. Holmes's window was directly opposite; the light was out. I hurled my weight across; it smashed the window and I felt the string being drawn across. The rope followed, and in a few seconds we had each made our end fast, and had a strong but slender bridge connecting us. I looked down and saw Lady Yvonne closing the bonnet of my car, no doubt after making some adjustment. She was a thoughtful girl at bottom.

But now I saw a figure gingerly put forth one leg, and after some difficulty grasp the rope with his hands and feet. He was now upside down and crawling slowly towards me. His clothing, always odd, seemed doubly so until I saw he had a pair of trousers in his teeth. Laboriously he came, watched by two pairs of anxious eyes, and now he was half-way across; when too near to be comfortable I heard the blast of a police whistle. Holmes stopped.

"Drop it," called Lady Yvonne in desperation. Holmes shook his head and the trousers like a dog worrying the hearth-rug.

"Very well," she said, and produced her revolver. Taking careful aim she pressed the trigger; a bullet whistled past my friend's ear; another grazed his scalp, and with an involuntary grunt he dropped the trousers. I was just about to fling an old sack down on the fair-haired one when she saw me, and with what I acknowledge was a brilliant shot she lodged a bullet in my left deltoid muscle. She hastily picked up the trousers, jumped into her car, and rapidly gathering speed just reached the exit from the yard as two policemen ran in. Scattering them to right and left she was gone like a flash; she had no number plates and no lights. They ran after her blowing their whistles as they went. We were as yet undiscovered. Holmes had just begun to move when the face of Curtis appeared at the opposite window. We stared at one another for a few seconds; then he shook his fist at us and disappeared. Holmes reversed his direction and made for the attic. I hurried down to the basement and found I was locked in. Her ladyship had let down the grating. I managed to force open a small window and emerged in the yard. Running round to the front I found the door wide open—Curtis had fled.

"Go after her in your car," shouted Holmes from behind the attic door, "she will be heading south."

I ran to my car, then stopped short. The tyres were all flat, the petrol tank and radiator had been emptied; I opened the bonnet and found the wires had been cut and entangled; as I raised my head from the bonnet I found myself looking into the dazzling light of a policeman's lantern.

"You'd better come along with me to the station," he said; "I saw you crawling out of that there window—now come on!"

I went, seeing that it was useless to argue. At the station I was charged with being a suspected person on enclosed premises with intent to commit a felony.

"Nonsense," I replied indignantly. "I had been seeing my friend Mr. Holmes, and coming across the yard I fell down the grating, which was raised; I intend

to write a protest to the papers about the negligence of the police in allowing such a dangerous thing."

The sergeant rubbed his chin.

"Yes, doctor, but what about that there car of yours—tyres all flat, no petrol, no water?"

"What about it indeed? It seems any vandals can disable a doctor's car under the very noses of the police without being disturbed; that will also appear in my letter."

"Well, just wait a bit and I'll telephone Mr. Holmes."

I was taken to the cells and locked up. After a delay of about half an hour I was brought back.

"It's all right, Dr. Watson," said the sergeant; "Mr. Holmes has confirmed what you said; I am sorry for this inconvenience."

"Don't apologize," I replied, whereupon, business being slack, he took me into his little den, where we toasted each other in a stiff whisky. We parted on the doorstep.

"About that there letter?" said he.

"That there letter has been drowned in whisky," I said; "Good night."

I went home and applied a dressing to the puncture in my shoulder. I went to bed to dream of her ladyship driving me in her car along a tight rope and shooting at pork pies which had wings and were swarming around us in scores. Finally I said "Eh" in a loud voice, whereat they all disappeared, my lady seized me by the shoulder and I awoke with a stabbing pain, due to the fact that I had been lying on my injured limb. Of Holmes I heard nothing for two days. On the third he came in to breakfast with me, it was a delightfully warm day and we sat near the open window. I asked about his examination.

"I spent all the morning trying to find traces of Curtis, but he has escaped me; consequently I missed my examination, which was at nine o'clock."

"I lost the girl," I said; "I am very disappointed about it."

"Now after you left us on the bridge, things went very well; I rescued Curtis, and explained that you were rather unreliable and given to practical joking. He was all the more anxious to get to Baker Street and dry his clothes. There, however, he refused my offer to press his trousers, but stood and dried them before the fire. My next plan was to encourage him to drink heavily, then recover the letters when he was asleep. But when I entered his room later to my dismay I found him asleep in bed with his trousers on. I began to remove them, but they got caught around the ankles, and after a particularly strong tug I pulled him out on to the floor. He woke up and we had a fierce struggle. At last he tripped over the bed-post and I managed to tear off

the trousers and raced up with them to the attic. He followed so closely that he was able to lock me in before I could snatch the key. I could not signal, as this would have attracted notice and given the show away. Curtis spent his time in my room or on the stairs, threatening all sorts of violence one minute and offering empty bribes the next."

"But when we came, why did you not throw down the trousers?"

"For all I knew Curtis was watching from the landing window; he could easily have overpowered both of you—I don't suppose you had a revolver with you?"

"Lady Yvonne had, and she is a good shot; the X-ray shows a small bullet embedded in my muscle; as it is quiescent I do not propose to have it removed."

We fell silent, and Holmes, who can eat, smoke and drink all at once, had just filled his mouth with hot coffee when a large object came hurtling through the window, hit him on the side of the face and knocked his pipe out of his mouth, which dragged both his plates of false teeth out and broke them; some of his coffee went down his larynx and he began coughing as if he would choke. I heard Lady Yvonne's clarion hoot in the distance. I ran to the parcel and opened it. Inside was a smaller one addressed to me. I hurriedly stowed it away. The larger one was a huge pork pie addressed to Holmes, but as he had no teeth he handed it to me and hurried off to see his dentist. It was a good pie.

My parcel contained two hundred and fifty guineas in bank-notes, a signed photograph and a beautiful silver cigarette case. I opened it and found a lock of fair hair faintly perfumed with "Lily of the Valley". Inscribed inside in a facsimile of her own handwriting was "To my darling Watson, with all my love from Yvonne."

I gave Holmes half my fee. He has not yet given up the search. If anybody wishes to know which is the best theatrical performance to see he can do no better than call for advice at Baker Street, for Holmes is an authority on them. He haunts all the theatres, and attends every manager's office where girls are assembled for approval or "auditions" as they are called. Moreover he sits in the front row of the stalls with a pair of field-glasses and scans intently every girl on the stage, whether dark or fair.

I know for a fact that this is so, for the other night Yvonne and I sat together behind him in the stalls and we saw him at it.

F. W. J. W.

## ABERNETHIAN SOCIETY.

## REPORT FOR SUMMER SESSION, 1933.

THE Summer Sessional Meeting was held in the Medical and Surgical Theatre on Thursday, June 15th, the President, Dr. Leishman, being in the Chair. The minutes of the previous meeting having been read and approved, the PRESIDENT introduced Prof. A. H. Burgess, who then delivered his address on "Stone-cutters and Stone Crushers" to the Society.

Lithotomy and lithotripsy were taken separately, the details and stages of the history of each operation being each fitted together to form a complete picture of absorbing interest. Both operations from their inception had been removed from the sphere of medical art, and left largely to the quacks, from among whom stands out pre-eminently Frère Jacques, who thought of nothing but the good of his patients, and gave all his profits to the poor. On the other hand, Rau, a surgeon, succeeded in amassing a large personal fortune. He himself practised a method (that of Frère Jacques) far in advance of the inferior and more dangerous method which he taught to his students, and thus not only prostituted medical etiquette, but also was responsible indirectly for hundreds of deaths.

The modern developments of these two operations and their reabsorption into surgery as legitimate procedures brought the address, which had been illustrated throughout by a series of excellent and unique slides of historical instruments and techniques, to a close.

Mr. GIRLING BALL cordially welcomed Prof. Burgess to St. Bartholomew's Hospital, and proposed a vote of thanks for the admirable example of how operations have developed, both lithotomy and lithotripsy being exceedingly difficult surgical manipulations. After Mr. CAPPER had seconded the vote of thanks, Prof. BURGESS briefly replied, and closed a very successful evening (despite the unavoidable absence of the Nursing Staff).

A meeting of the Society was held in the Morbid Histology Laboratory on Thursday, June 29th, when, after the minutes of the previous meeting had been read and signed, the President, Mr. A. J. OWSTON, introduced Dr. CANTI, who then proceeded with his cinematograph demonstration and address on "The Culture of Living Tissues *in vitro*".

After a brief outline of the inception and history of the subject of tissue culture, Dr. CANTI gave a few examples of the difficulties with which earlier workers had to contend.

The cinematograph was first used in the studies of such living cultures five or six years ago, when Strangeways sought to evade the labour of making a permanent record of cell changes in tissues *in vitro* by utilizing photographic methods. After a few technical details had been shown, the first film, demonstrating the varied activities of normal tissue-cells under culture, was given; cell division, phagocytosis, and high-power views of fibroblasts under dark-ground illumination to show the finer details of cell structure, being succeeded by the reactions of motile and sessile normal and cancerous cells under the influence of unscreened irradiation with radium.

After a brief explanation of a few points arising out of the films which he had shown, Dr. CANTI then proceeded to his final film, which dealt with the embryological aspect of applied cinematography. This latter demonstration included the differentiation of the embryonic tissues in the chicken, and especially the osteogenesis of the bones of the hind limb from the stage of precartilaginous condensation to that of actual ossified elements.

Dr. ROBB SMITH then proposed the Society's vote of thanks to Dr. CANTI for an extremely interesting and instructive evening. Dr. HALL SMITH seconded the vote of thanks, which was carried with applause.

After Dr. CANTI had appealed for more research workers in this subject of tissue culture, the meeting stood adjourned.

A. INNES.

A. H. HUNT.

## STUDENTS' UNION.

## CRICKET CLUB.

Encouraged by much brilliant sunshine, the Hospital cricketing activities of the past month have been considerable, and the issue has been a general intimidation of bat by ball. I think one is justified in stating that none of our batsmen could be dubbed "crease-shod" in their ventures at the wicket.

## 1ST XI.

ST. BARTHOLOMEW'S HOSPITAL v. TIMES MIDWEEK C.C.

Played on Wednesday, June 21st. Won by 46 runs.

This game ran evenly. Batting first we made 157 runs, Dolly contributing a sound 42. Smart catching and good fielding resulted in our opponents being ousted for 111 runs; Mundy 4 for 34 and Dransfield 3 for 9 shared the bowling honours.

ST. BARTHOLOMEW'S HOSPITAL v. GUY'S HOSPITAL.

## 2nd Round Cup-tie.

Played on Thursday, June 22nd. Won by 6 wickets.

This day proved showery, but there was little curtailment of play, and we were gloriously successful by 6 wickets.

Guy's opened very carefully on a fast wicket, and rather laboriously compiled a total of 177 runs. Mundy and Nunn bowled with vigorous consistency throughout, and the fielding was both brilliant and formidable. We lost our 1st wicket with no runs scored, but then Morison found successively useful partners in Boney, Wade and Wedd, and completed a brilliant innings of 99 before he was bowled by a very good ball. A rare innings in one's first cup-tie! We passed the Guy's total with 6 wickets to spare.

## Scores:

GUY'S HOSPITAL.		ST. BARTHOLOMEW'S HOSPITAL.	
Brown, run out.	36	Boney, c Foster, b Doherty	23
Eddy, c and b Wedd	17	Dolly, b Lowery	0
Wright, b Nunn	26	Morison, b Whitridge	99
Doherty, st Bamford, b Wedd	23	Wade, c Hill, b Doherty	19
Hill, b Boney	16	Wedd, not out	33
Starun, lbw, b Nunn	2	Nunn	
Ridsdale, b Mundy	4	Wilson	
Whitridge, b Mundy	0	Dransfield	
Alexander, b Mundy	12	Anderson	Did not bat.
Lowery, not out	13	Mundy	
Foster, c and b Mundy	6	Bamford	
Extras	22	Extras	4
Total	177	Total (for 4 wickets)	178

Bowling: Mundy, 4 for 41; Nunn, 2 for 25; Wedd, 2 for 36; Anderson, 0 for 13; Boney, 1 for 15.

ST. BARTHOLOMEW'S HOSPITAL v. R.N.C., GREENWICH.

Played on Saturday, June 24th, at Greenwich. Won by 57 runs.

This victory, achieved by a depleted side, was very creditable. Consistent scoring by all enabled us to make 185 runs, whilst Moss, of the opposition, took 7 wickets for 58 runs. Nunn and Wedd, in taking 4 wickets apiece, bowled very commendably.

ST. BARTHOLOMEW'S HOSPITAL v. OLD PAULINES.

Played on Saturday, July 1st, at Thames Ditton. Won by 129 runs.

We batted first, and Wheeler gave a delightful exhibition in compiling a very care-free century in our total of 284 runs. He received adequate support from Anderson (42 runs) and Maidlow (28 not out), but altogether showed a superb individuality. With Dolly taking 6 wickets for 50 runs, the Paulines could muster but 155 runs, and we won with ease.

ST. BARTHOLOMEW'S HOSPITAL v. ARCHITECTURAL ASSOCIATION.

Played on Saturday, July 8th, at Elstree. Won by 61 runs.

Again did individual success dwarf the outcome, for Wade, out of a total of 141 runs, made a characteristically forceful 93 not out, and that batting as No. 4!

## ST. BARTHOLOMEW'S HOSPITAL v. SHOEBOURNE GARRISON.

Played on Saturday, July 15th, away. Lost by 7 wickets.

It was very surprising to see ourselves dismissed for a mere 119 runs on such a perfect wicket—our previous success had apparently reassured us against such an occurrence, but we failed because of an inability to tackle some crafty slow bowling. Gabb and Mundy alone batted without restraint, and the latter was concerned in a last-wicket stand of 40 runs. The Garrison put on 52 runs for the first wicket, their opening batsman, Capt. Glover, went on to complete an orthodox 93, and the whole side totalled 224. Dransfield, with 4 for 31, had most success of the ten bowlers tried. Perhaps we might add that some of our fielding was quite below standard, particularly in the matter of slip-catching—an art dependent on concentration.

## ST. BARTHOLOMEW'S HOSPITAL v. ST. ANN'S HEATH.

Played on Wednesday, July 19th, at Virginia Water. Won by an innings.

In this game a further demonstration of our individual talent was forthcoming, and personal success ran rife. In dismissing our opponents for 56 in their first innings credit must go to Mundy, with 6 wickets for 18 runs, and support from Wedd with 4 for 33.

Our innings was a magnificent example of flexible batsmanship—in the hour before tea our score advanced by no less than 200 runs, our best ever! Most of our men made runs—Wilson (61), Bamford (31 not out), etc.—but all was eclipsed by Wedd's 63 runs in about 17 minutes. Rarely has the latter been so vigorous, and the three magnificent "sixes" he hit exemplified his colossal hitting powers. St. Ann's in their second innings managed to make 101 runs.

## 2ND XI.

## ST. BARTHOLOMEW'S HOSPITAL v. UNIVERSITY COLLEGE.

Played on Wednesday, June 21st, at Winchmore Hill. Won by 60 runs.

We batted first and totalled 127 runs (for 9 wickets declared), Evans (37 not out) and Dias (31) showing a bright repertoire of strokes. Crosse and Howell both bowled with skill, and the opposition made but 69.

## ST. BARTHOLOMEW'S HOSPITAL v. GUY'S HOSPITAL.

Played on Thursday, June 22nd, home. Won by 3 wickets.

## 2nd Round Cup-tie.

With a hard turf and shining sun one would have expected high scoring, but Guy's, who batted first, totalled but 98. This was in no small way due to accurate bowling by Hayes (5 for 27), and Capper (2 for 11), and some fast fielding. Slowe (29), Hayes (21) and Crosse (21) enabled the score to be passed with 7 wickets down. Capper's leadership was altogether inspiring.

## ST. BARTHOLOMEW'S HOSPITAL v. WOODCUTTERS.

Played on Saturday, July 1st, home. Drawn.

Woodcutters, batting first, made 167 runs; they enjoyed escapes, but the pace was very timid. In taking 5 wickets for 58 runs Baker bowled really well, whilst of our batting total of 126 for 9, Jenkins's 27 not out deserves most mention. Howell, too, made an attractive 25.

## ST. BARTHOLOMEW'S HOSPITAL v. ST. PHILIP'S NOMADS.

Played on Saturday, July 8th, home. Won by 84 runs.

This was a new fixture, and we were pleased to beat the opposition so comfortably. Batting first, our runs came quickly, and we were able to declare with 7 wickets down at a total of 148 runs. Capper, Dias and Crosse again showed welcome orthodoxy in stroke play. The Nomads could accumulate but 64 runs and we ran out easy victors.

## ST. BARTHOLOMEW'S HOSPITAL v. R.A.F. (NORTHOLT).

Played on July 12th, home. Lost.

After a very late start we opened our innings, but our batting talent was non-responsive, and though the bowling rather lacked

guile, we made but 97, Dransfield contributing 33 of these. Our score was passed with but 4 wickets down, and so our opponents won easily, though the display of batsmanship was hardly in the classical style.

## ST. BARTHOLOMEW'S HOSPITAL v. K.E.B.

Played on Saturday, July 15th, home. Lost.

We had defeated our visitors somewhat easily earlier in the season, and so we were surprised to be trounced so completely by 10 wickets.

Our declaration of 106 for 9 (Wedd 54) was treated with scant respect, and the score passed very summarily by the opposition's opening batsmen. This is our heaviest defeat in several seasons.

## ST. BARTHOLOMEW'S HOSPITAL v. HORNSEY GRANGE.

Played at Saturday, July 22nd, at Winchmore. Won.

Providing adequate contrast to our previous dismal failure, this game was a further demonstration of runs scored at breakneck pace against the clock.

Declaring at the tea interval with a score of 168 for 5 wickets, our opponents left us 1½ hours in which to get the runs: we achieved that object with 15 minutes in hand, expressive enough of the scoring rate.

Their opening pair put on 97 runs; something like nine chances went a-begging, for slackness in the field was very rife. Cup-ties will produce no recurrence of this we hope. Our start was even more impressive, Wade (54) and Morison (47) putting on 103 for the first wicket in a merry bout of hitting. Both showed flexible wrist-play and perfect timing, and the runs came very quickly. Four wickets then fell cheaply, but a hectic innings of 45 runs not out by Mundy settled the issue.

Both the St. Ann's match and the above game illustrate our latent ability to make runs quickly, if required. Surely this "devil may care" cricket is to be commended in a game which, though rarely dull, is sometimes tending to depress these faster scoring rates. It is with anticipation, then, that both teams enter the Semi-final cup-ties for the second successive year.

C. M. D.

## LAWN TENNIS CLUB.

It is gratifying to be able to write that the Hospital again reached the Final of the Inter-Hospital Cup and were again opposed to St. Thomas's. On Wednesday, June 21st, we played the semi-final round against the combined Charing Cross and Royal Dental Hospitals, and this we managed to win quite easily, only losing one match out of seven in the doubles, and one out of three in the singles.

The Final was played at Wentworth Club on Tuesday, July 18th, in glorious weather. St. Thomas's are an extremely strong side and we were very badly beaten. We lost all the singles, and could only win one out of five doubles played. Two of the singles, however, produced quite good matches. Latter won the first set in his match with Buzzard at 12-10, but after this he seemed quite exhausted and went down 6-3, 6-1 in the next two. Kingdon and Van Meurs had a great struggle for the first set, but eventually Kingdon lost it at 8-6, and then the next went to Van Meurs at 6-2. However, in spite of all this we were no match for them. We have been in the Final for many years running now, but have never been good enough to win.

The season has, on the whole, been quite successful. The tournament has now reached its final stage, and in the singles W. K. Frewen and L. Heasman are opposed to each other, and in the doubles R. C. Witt and J. W. B. Waring will play L. Heasman and D. Fearnley. In the singles the winner will receive a racquet presented by R. C. Fillingham & Co., and a money prize; the runner-up will also receive a money prize, and similarly the two final pairs in the doubles.

This year many new and perhaps better fixtures have been played, and it is hoped that next year the fixture-list will be still further improved, and that we shall not only reach the Final of the Cup matches, but accomplish what we have dreamt of for so long and win the Cup.

The following are the results of the matches played since the last issue of the JOURNAL. Excluding Cup matches the 1st VI have altogether won 8 and lost 4, while 9 have been scratched. The 2nd VI have won 4, lost 1, and 7 have been scratched, and the 3rd VI have won the only match they have played out of 5.

R. C. W.



## 1ST VI.

Saturday, June 17th, v. St. George's Hospital, at Winchmore. Won, 6-2.

J. R. Kingdon and J. R. Blackburne beat Miller and Jones-Davies, 6-2, 6-3; beat Barwell and Davies, 7-5, 6-1; beat Binning and Hartman, 6-1, 6-1.

O. A. Savage and M. L. Nairac beat Barwell and Davies, 6-4, 6-3; beat Binning and Hartman, 6-0, 6-1.

R. L. Benian and D. Levine beat Miller and Jones-Davies, 6-1, 6-4; lost to Barwell and Davies, 1-6, 6-1, 2-6; lost to Binning and Hartman, 3-6, 1-6.

Wednesday, June 21st, Cup-tie semi-final v. Royal Dental and Charing Cross. Won, 8-2.

## Singles:

J. R. Blackburne beat W. D. Westoby, 6-3, 8-6.

J. R. Kingdon lost to K. H. Coulton, 3-6, 6-3, 4-6.

R. C. Witt beat J. C. Monchanoa, 6-3, 6-2.

## Doubles:

K. A. Latter and O. A. Savage beat R. E. Lander and W. D. Westoby, 6-2, 7-5; beat K. H. Coulton and J. C. Monchanoa, 6-4, 6-0; beat C. F. Ballard and T. Kaufman, 6-1, 6-2.

J. R. Kingdon and J. R. Blackburne beat Coulton and Monchanoa, 6-1, 6-2; beat Ballard and Kaufman, 6-0, 6-3.

R. C. Witt and W. K. Frewen lost to Lander and Westoby, 3-6, 3-6; beat Ballard and Kaufman, 6-2, 6-2.

Wednesday, June 28th, v. Staff College, at Winchmore. Won, 5-4.

J. G. Nel and L. M. Curtis beat Dimoline and Oliver, 6-4, 7-9, 6-4; lost to Col. Browning and Burford, 3-6, 3-6; beat Goldie and Hutcheon, 6-2, 6-3.

A. Innes and R. H. Dale beat Dimoline and Oliver, 4-6, 6-2, 6-4; lost to Col. Browning and Burford, 5-7, 2-6; beat Goldie and Hutcheon, 6-3, 6-3.

R. L. Benian and J. R. Royston beat Dimoline and Oliver, 6-2, 4-6, 6-1; lost to Col. Browning and Burford, 3-6, 2-6; beat Goldie and Hutcheon, 6-0, 6-4.

Saturday, July 8th, v. Bank of England, at Winchmore. Lost, 3-6.

W. K. Frewen and B. Thorne-Thorne lost to Berry and Garton, 4-6, 6-0, 3-6; lost to Barnett and Bonavia, 2-6, 2-6; beat Warne and Barno, 4-6, 6-3, 6-4.

J. R. Kingdon and J. G. Nel lost to Berry and Garton, 3-6, 2-6; lost to Barnett and Bonavia, 4-6, 7-5, 3-6; beat Warne and Barno, 6-4, 6-3.

J. H. Hunt and O. A. Savage lost to Berry and Garton, 4-6, 4-6; lost to Barnett and Bonavia, 1-6, 6-2, 2-6; beat Warne and Barno, 6-1, 7-5.

Wednesday, July 12th, v. Westminster Hospital, at Clapham. Won, 5-4.

Tuesday, July 18th. Final Cup-tie v. St. Thomas's, at Wentworth Club. Lost, 10-1.

## Singles:

K. A. Latter lost to E. M. Buzzard, 12-10, 3-6, 1-6.

J. R. Kingdon lost to D. P. Van Meurs, 6-8, 2-6.

R. C. Witt lost to F. D. M. Flowerdew, 6-3, 1-6, 1-6.

B. Thorne-Thorne lost to P. T. Liem, 3-6, 4-6.

J. W. B. Waring lost to H. S. Sharp, 5-7, 3-6.

W. K. Frewen lost to R. D. McKelvie, 1-6, 6-4, 1-6.

## Doubles:

Latter and Kingdon lost to Buzzard and Van Meurs, 7-9, 5-7; beat McKelvie and Liem, 6-1, 6-1.

Witt and Waring lost to Buzzard and Van Meurs, 2-6, 2-6; lost to Sharp and Flowerdew, 4-6, 4-6.

Thorne-Thorne and Frewen lost to Liem and McKelvie, 5-7, 6-1, 5-7.

## 2ND VI.

Saturday, June 10th, v. King's College Hospital, at Denmark Hill. Won, 6-3.

R. H. Dale and W. P. Shemilt lost to 1st pair, 8-6, 5-7, 4-6; lost to 2nd pair, 6-3, 7-9, 0-6; beat 3rd pair, 6-3, 5-7, 6-3.

A. R. Pope and G. Blackburn beat 1st pair, 6-3, 4-6, 6-3; beat 2nd pair, 6-2, 6-3; beat 3rd pair, 6-4, 6-4.

L. M. Curtis and R. L. Benison lost to 1st pair, 4-6, 1-6; beat 2nd pair, 11-9, 6-0; beat 3rd pair, 7-5, 6-4.

Saturday, July 1st, v. University College Hospital, at Perivale. Won, 8-1.

## THE ST. BARTHOLOMEW'S HOSPITAL GOLFING SOCIETY.

The St. Bartholomew's Hospital Golfing Society held their Sixth Summer Meeting at Walton Heath, on Thursday, June 29th. The hospitality of the Club was extended to us through the kindness of Lord Riddell. The weather was perfect, and thirty members took part in the competitions. Twenty-four stayed on for supper, and all enjoyed an excellent day's golf. The scores returned were better than in the previous year, and we were glad to welcome several newly qualified members.

The results were as follows:

## Gordon-Watson Cup.

K. F. D. Waters	.	.	.	.	4 up.
Sir Milsom Rees	.	.	.	.	1 up.
J. N. Groves	}	All square.			
E. F. S. Gordon					
J. G. Milner					
J. V. Sparks					

## Best score for Last Nine Holes.

J. V. Sparks	.	.	.	.	1 up.
J. W. D. Buttery	}	All square.			
T. H. Just					
K. F. D. Waters					
R. S. Corbett					
H. G. Baynes	.	.	.	.	

## Sealed Holes.

Sir Milsom Rees	.	.	.	.	3 up.
R. Coyte	.	.	.	.	
K. F. D. Waters	.	.	.	.	2 up.
R. S. Corbett	.	.	.	.	

## Foursomes.

K. F. D. Waters and R. S. Corbett	.	.	1 up.
J. W. D. Buttery and J. G. Milner	.	.	1 up.

## Best Score for First Nine Holes.

J. W. D. Buttery and J. G. Milner	.	.	2 up.
S. L. Higgs and R. Coyte	.	.	
J. N. Groves and W. Wilson	.	.	All square.

## Sealed Holes.

J. W. D. Buttery and J. G. Milner	.	.	2 up.
J. Parrish and J. Spencer	.	.	All square.

## RIFLE CLUB.

In spite of the success met with on the Miniature Range during the winter months the standard of shooting at Bisley this year has been rather below the average of recent years. The Club, however, has several young and promising members and next year should see much improvement.

In the Astor Cup, which was shot on May 27th, we were represented in the United Hospitals team by B. C. Nicholson and J. Shackleton Bailey. Their scores were 58 and 65 respectively out of a possible 70—a very good effort considering the appalling conditions under which the match was shot.

## ARMITAGE CUP.

Competed for on June 7th, 14th and 21st.

## 1st Stage:

	200 yds.	500 yds.	600 yds.	Total.
J. Dalziel	32	32	31	95
J. Shackleton Bailey	29	31	31	91
K. F. Stephens	31	29	30	90
B. P. Armstrong	31	29	27	87
J. E. Underwood	25	30	31	86
I. R. Davies	31	29	24	84

Grand total . . . . . 533

## Total scores:

St. Mary's	553
Guy's	540
London	534
St. Bart's	533
St. Thomas's	527

## 2nd Stage:

	200 yds.	300 yds.	400 yds.	Total.
J. Shackleton Bailey	31	34	30	95
B. P. Armstrong	31	33	31	95
J. Dalziel	33	31	30	94
J. E. Underwood	30	34	29	93
K. F. Stephens	31	25	27	83
I. R. Davies	25	27	29	81

Grand total . . . . . 541

## Total scores:

Guy's.	1097
St. Mary's	1089
London	1089
St. Bart.'s	1074
St. Thomas's	1047

## 3rd Stage:

	200 yds.	300 yds.	400 yds.	Total.
J. Shackleton Bailey	33	34	29	96
J. Dalziel	34	31	31	96
K. F. Stephens	28	33	29	90
J. E. Underwood	32	30	26	88
D. O. Davies	33	29	25	87
B. P. Armstrong	28	27	31	86

Grand total . . . . . 543

## Final total scores:

Guy's (winners)	1674
St. Mary's	1658
London	1620
St. Bart.'s	1617
St. Thomas's	1567

The Benetfink Challenge Cup, awarded for the best aggregate score in the Armitage Cup, has been won by J. Dalziel with a score of 285.

In the United Hospitals Prize Meeting, held at Bisley on Wednesday, June 21st, the following secured individual prizes:

	Score (possible 35).
(1) J. Dalziel, 1st prize at 200 yards	34
(2) K. F. Stephens, 1st prize at 300 yards	34
(3) J. Shackleton Bailey, 2nd prize at 500 yards	34

## UNITED HOSPITALS CHALLENGE CUP.

Competed for at Bisley on Monday, July 17th:

	Score.
(1) St. Mary's (winners)	473
(2) St. Thomas's	462
(3) Guy's	458
(4) London	457
(5) St. Bart.'s	453

## CORRESPONDENCE.

## COLLEGE APPEAL FUND.

To the Editor, 'St. Bartholomew's Hospital Journal'.

DEAR SIR,—I had the pleasure of sitting next to my old friend, Mr. Girling Ball, when he presided at the Ninth Decennial Contemporary Club Dinner; his optimism, wonderful keenness and far-seeing vision so impressed me that I had the unhappy feeling of becoming an "outcast and traitor" to my old School if I refrained from supporting the great scheme, on which he has set his heart, and to which he is devoting his time and energy.

During the past few months I confess to having received many letters of appeal from him, but these have found their way into the receptacle so handy for such literature, and yet I did feel guilty at times that I was not supporting his efforts.

If the Dean of the College could interview personally all old Bart.'s men, the sum for which he is asking would, I feel confident, be quickly over-subscribed, for he possesses such an amazing magnetic power.

I have written and promised Mr. Girling Ball a sum of 125 guineas (spread over five years) if five of my contemporaries at Bart.'s will be willing and happy to make a similar promise before the end of the present year.

I am, Dear Sir,  
Sincerely yours,  
Stoneyfields,  
Newcastle-under-Lyme,  
Staffordshire,  
July 15th, 1933.  
ERIC E. YOUNG.

## THE AIMS AND METHODS OF MEDICAL EDUCATION.

To the Editor, 'St. Bartholomew's Hospital Journal'.

SIR,—Criticism is healthy and entertaining, and many of your readers must have enjoyed Dr. Batten's indictment of the Medical Curriculum. Hunting with a pack of hounds appeals to me as a good pastime, and the Medical Curriculum is such an evasive old fox that I would like to join with Dr. Batten in the hue and cry he raises. But when you, Sir, connect Dr. Batten's remarks with an inquiry as to the future of our Medical School "equipped with costly laboratories", etc., etc., it is time for someone to sit up and take notice of this criticism.

To begin with I will not disparage the ideal of a medical student who begins his professional studies "with the trained mind of a classical or mathematical scholar". Or shall we just be content with a medical student who has had a good general education before he embarks on medicine? Let us then follow him in his study of anatomy and physiology when he learns the normal structure and function of the human body. These studies are of outstanding importance to him because he learns about the normal, and will be the better fitted to take an interest in and understand the healthy people who ask his advice when he is qualified. By these studies, too, he learns something of normal variations of structure and function. By his knowledge of such little things as carpal bones he may at some later date be the better able to recognize one that is fractured, and by knowing the normal pigments of urine he may recognize the significance of an excess of one of them, or the presence of a pigment that is not found in normal urine. In addition to the future technical value to be gained by the study of physiology and anatomy, the study of these sciences is of inestimable value in itself. It teaches that accuracy of observation and clearness of thought on which Dr. Batten so rightly lays stress. And in addition scientific study takes the student's mind far beyond materialism into the infinity of things. Let anyone who doubts this read Karl Pearson's *Grammar of Science*, or, if this very Bible of Science seems out of date, let him read such a book as *The New Background of Science* by Sir James Jeans.

Yet Dr. Batten would intrude into this precious period of scientific training (which appears to him "a dull and empty exercise") the study of abnormalities and signs of disease. Time, too, is to be found for research into clinical physiology, whatever that may be. Now it may be distasteful to some, but it is a matter of fact, that the practice of medicine is based on a broad scientific foundation of knowledge. Further, the advance of science will lead to an expansion of this knowledge, and the so-called "ologies" will increase in number and importance. In short, a good scientific training and knowledge is as important in the approach to the study of medicine as is a good general education.

As regards the clinical training of medical students, it *must* be based on what Dr. Batten calls the materialistic conception of disease. Organic disease is of first importance. No lay person is properly equipped by training and knowledge to diagnose tuberculosis, cancer, diabetes, pernicious anæmia, syphilis and the whole host of organic diseases (including subacute combined degeneration of the cord) as is the qualified doctor. It is a bad job to miss an acute appendix, or to overlook phthisis in someone who complains of indigestion. It is a tragedy to fail to recognize a perforated gastric ulcer or intestinal obstruction. Time after time disease stands out beyond personalities. In all sorts of ways it stands out so importantly that the professional attitude of mind which says this is a case of agranulocytic anæmia (to mention a rare disease about which Dr. Batten has made an original contribution to medical literature) is justified. If the medical profession fails to diagnose organic disease the public have nowhere else to turn for help. But if we fail to cure functional disease the public have a host of healers to whom they can go for help, and on some of whom they can, in fact, rely.

Apart from the matter of written examinations, which is too large

a matter to take up now, but for which there is no immediate alternative, I think that the real burden of Dr. Batten's complaint is the failure to teach ordinary psychology, and the failure to emphasize the importance of a patient's state of mind. Things have changed a little since Dr. Batten's student days. For instance, there is a demonstrator of radiographic anatomy in the dissecting-rooms. And nowadays patients who are emotionally perplexed and ill in mind and body not uncommonly find a bed in the medical wards. But to demonstrate such cases (mark the word) is difficult. To understand the difficulties of life and living one needs some considerable experience of life and people. It is on this experience, and not on facts supplied by teachers of medicine, that a philosophy of life is based.

In conclusion, I maintain that the teaching of so-called materialistic medicine comes first. It is based even now on scientific principles and knowledge. Science will play a steadily increasing part in the evolution of medicine and in medical practice, whether general or special. The teaching of real psychology and the understanding of emotional tone belongs chiefly to a later stage of education, when experience of life enriched by responsibility, successful accomplishment and especially by failure to achieve, will have rendered the mind mature, and ready to grasp and understand the experience of others. It is idle to pretend that much progress can be made with this part of medical education in undergraduate days.

I am, Sir,

Yours faithfully,

GEOFFREY EVANS.

#### EARLY ACCOUNTS OF VACCINATION.

To the Editor, 'St. Bartholomew's Hospital Journal'.

DEAR SIR,—May I raise a humble, if belated, protest against the title which you caused to be printed over an account of a case of inoculation with smallpox, on page 111 of your March issue. "An Early Account of Vaccination, 1763," is, in fact, a rather late account of variolation, and the insinuation in the last paragraph at the expense of Jenner's "famous quarto" of 1798 is quite unjustified.

Inoculation, the ingrafting of smallpox matter into patients to furnish an easier way of undergoing the disease, is, in Garrison's words, "as old as the hills", having been certainly practised in China and Africa from time immemorial. It was introduced into England in the second decade of the eighteenth century, the earliest literary reference being in the *Phil. Trans.*, 1717, vol. xxix, where is published a letter on the subject from Timonius, dated Constantinople, December, 1713. Lady Mary Wortley Montague, wife of the Ambassador to the Porte, popularized the method, causing one son to be inoculated in Constantinople in 1718 and a daughter in London in April, 1721. The royal patronage of Princess Caroline was extended first to the theory and, after some trial on condemned criminals and charity children, to its practical application upon her own offspring. At the same time an epidemic in Boston, beginning in May, 1721, aroused the interest of Cotton Mather, and with his stimulation, Dr. Zabdiel Boylston, during the following months and in spite of much medical and lay opposition, inoculated as many as 244 persons.

The popularity of the practice waned after this first peak, to wax again after the publication of Kirkpatrick's tract in London in 1743, and from 1757 to 1767, the period of the account published by you, Robert Sutton alone is said to have inoculated over 2500 persons in England. The case described in the JOURNAL shows no unusual feature. After the then fashionable three weeks of medical preparation, the boy was given a mild attack of smallpox from an inoculated person. The illness and the generalized eruption, typical of variola and rare in inoculated vaccinia, we are spared through the work of Jenner.

A smallpox inoculation story of some local interest awaits narration of the pamphlet war conducted in the best eighteenth century manner and centred around Pierce Dod, Physician to the Hospital from 1725 to 1754. Allow me here to refer your readers to the real forerunner of Jenner, Benjamin Jesty, a characteristic account of whom was published by Dr. Bett in *St. Bartholomew's Hospital Journal*, 1929, xxxvi, p. 88, and to Dr. A. C. Klebs's article on the early history of inoculation (variolation, as opposed to vaccination) in the *Bulletin of the Johns Hopkins Hospital*, 1913, xxiv, p. 69.

I am,

London, W.;  
July, 1933.

Yours etc.,

ALFRED W. FRANKLIN.

## REVIEWS.

AIDS TO PATHOLOGY. By HARRY CAMPBELL, M.D., F.R.C.P. 1933. Sixth edition. Pp. viii + 252. Figs. 13. Price 4s. 6d.

AIDS TO BIOLOGY. By R. G. NEILL, M.A. 1932. Pp. vi + 257. Figs. 27. Price 3s. 6d. net.

AIDS TO DISPENSING. By A. O. BENTLEY, Ph.C. 1933. Second edition. Pp. vii + 204. Figs. 9. Price 3s. 6d.

AIDS TO MATERIA MEDICA. By GEORGE NEWNS, M.B., B.S.(Lond.), M.R.C.P.(Lond.), 1933. Price 3s. 6d. net.

(London: Baillière, Tindall & Cox.)

The use of books which summarize the main facts of many lectures and large text-books is always a matter of controversy. It is, however, in their abuse that the error lies. When much time has been spent in storing haphazard a multitude of definitions, comparisons and classifications, a need is present for some kind of synopsis. To meet this the long Students' Aids Series has been prepared (we find that this series contains nearly fifty members).

Naturally certain of the books fit their subjects better than others, particularly so the *Aids to Pathology*. It is remarkable that the author has succeeded in compressing the whole range of his subject into so small a space. Yet he has presented a book that is as interesting as it is instructive. It is a pleasant surprise to meet such phrases as "that bald sexton, Time", under Hyperpneumonia, "a large white kidney makes a large white body", and several other quotations from the classics, medical and otherwise. Especially notable are the chapters on Immunity, the Deficiency Diseases and Carcinogenesis. Everywhere authorities are freely quoted and full statistics given. The clinical viewpoint makes the book an invaluable one.

The second book on Biology, however, is not written solely for the medical student, and thus its scope is limited. Greater stress is laid on botany than the medical curriculum demands. The author is wise in dealing with the rabbit from the point of view of comparative anatomy, with only a short chapter on the frog and dogfish. The matter is arranged so that each section in itself contains a suitable answer to the major examination questions. The diagrams are original and very simple, and the text is clear, important words being picked out in heavy type. Unfortunately there are several errors both in text and in subject—for example: "carpels" for "carpals" several times, and a diagram of the venous system in *Scyllium* where truth has been badly sacrificed for simplicity.

The third book is intended for pharmacists and would be a luxury to the medical student. It deals with the technique and theory of dispensing, with the physical properties of the substances used. As throwing light, however, on a subject that is mysterious to the average student the book would be an inexpensive and useful addition.

The *Aids to Materia Medica*, on the other hand, caters only for the medical student reading for examinations. It is based on the 1932 British Pharmacopoeia. After an introduction the various drugs, inorganic and organic, are dealt with, the dose, action and preparations of each being given. The preparations are then grouped, with the drugs placed in order of dosage—a useful aid to the visual type of memory. Finally the drugs are classed according to their action, general and local. There are two appendices, one mathematical, the second a list of the dangerous drugs and their doses, and a comprehensive index.

## RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

ANDREWES, C. H., M.D. (WILSON SMITH, M.D., C. H. A., and P. P. LAIDLAW, B.Chir.) "A Virus Obtained from Influenza Patients." *Lancet*, July 8th, 1933.

BEATTIE, JOHN, B.Chir., F.R.C.S. "Anæsthesia and Analgesia in Labour." *Lancet*, July 1st, 1933.

- COLT, G. H., M.B., B.Ch., F.R.C.S. (and LYALL, A., M.D., M.R.C.P.). "Osteitis Deformans Treated with Parathormone." *British Medical Journal*, July 1st, 1933.
- DRURY, E. G. DRU, M.D., B.S.(Lond.), D.P.H. "Psyche and the Physiologists." *South African Medical Journal*, June 24th, 1933.
- ECCLES, W. McADAM, M.S., F.R.C.S. "Recurrent Renal Calculi: Nephrolithotomy Twice on each Kidney in the same Patient." *British Medical Journal*, July 15th, 1933.
- FRASER, FRANCIS R., M.D., F.R.C.P. "Toxic Goitre and its Treatment." *Lancet*, July 1st, 1933.
- GASK, GEORGE E., C.M.G., D.S.O., F.R.C.S. "The Surgery of the Sympathetic Nervous System." *British Journal of Surgery*, July, 1933.
- "A Diverticulum of the First Part of the Duodenum." *British Journal of Surgery*, July, 1933.
- GROVES, ERNEST W. HEY, M.D., F.R.C.S. "An Improved Pattern of the Revolving Spinal Bed." *British Medical Journal*, July 8th, 1933.
- HEALD, C. B., C.B.E., M.D., M.R.C.P. "The Permeability of the Body to Infra-red Rays." *British Medical Journal*, July 8th, 1933.
- HERNAMAN-JOHNSON, F., M.D., D.M.R.E. "X-ray Sterilization for Uterine Haemorrhage. Notes on the After-History of some Cases." *Practitioner*, July, 1933.
- HIGGS, S. L., F.R.C.S. "Painful Feet." *Lancet*, July 15th, 1933.
- HOSFORD, JOHN P., M.S., F.R.C.S. "Common Fractures of the Lower Limb." *Lancet*, July 1st, 1933.
- HUBBLE, DOUGLAS, M.B. "The Influence of the Endocrine System in Blood Disorders." *Lancet*, July 15th, 1933.
- KEYNES, GEOFFREY, M.D., F.R.C.S., and TAYLOR, HERMON, M.Ch., F.R.C.S. "A Case of Parathyroid Tumour." *British Journal of Surgery*, July, 1933.
- McCURRIC, H. J., M.S., F.R.C.S. "Common Infections of the Gall-bladder." *Medical Forum*, Vol. I, No. 3.
- MARSHALL, J.C. OLE, M.D., F.R.C.S. "Perforation of the Orbit with an Aniline Pencil." *British Medical Journal*, April 16th, 1932.
- "Safar's Method for Treatment of Detachment of the Retina by Diathermy." *Proceedings of the Royal Society of Medicine*, April, 1933.
- \*MAXWELL, JAMES, M.D., M.R.C.P. "Further Reports on the Tuberculin Treatment of Asthma." *British Medical Journal*, December 31st, 1932.
- MYERS, BERNARD, C.M.G., M.D., F.R.C.P. "The Feeding of the Newly Born." *Practitioner*, July, 1933.
- NORRISH, R. E., F.R.C.S. See Woollard and Norrish.
- POWER, Sir D'ARCY, K.B.E., F.R.C.S. "Some Early Surgical Cases. I. The Edwin Smith Papyrus." *British Journal of Surgery*, July, 1933.
- ROPER, F. A., M.A., M.D., M.R.C.P. "Encephalitis following Vaccination." *British Medical Journal*, July 15th, 1933.
- ROSS, J. PATERSON, M.S., F.R.C.S. "Sympathectomy as an Experiment in Human Physiology." *British Journal of Surgery*, July, 1933.
- SCOTT, H. HAROLD, M.D., M.R.C.P., D.T.M.&H.(Camb.), F.R.S. (Edin.) (N. HAMILTON FAIRLEY, F.R.C.P., and H. H. S.) "Fatal Case of Agranulocytic Angina Treated with Nucleotide K-96." *Lancet*, July 8th, 1933.
- SHAW, WILFRED, M.D., B.Ch.(Cantab.), F.R.C.S., F.C.O.G. "The Treatment of Spasmodic Dysmenorrhoea." *Lancet*, July 15th, 1933.
- TAYLOR, HERMON, M.Ch., F.R.C.S. See Keynes and Taylor.
- WALKER, KENNETH M., O.B.E., F.R.C.S. "The Diagnosis and Treatment of Testicular Swellings." *Clinical Journal*, July, 1933.
- WEBER, F. PARKES, M.D., F.R.C.P. "Embolism of Abdominal Aorta with Auricular Fibrillation." *British Medical Journal*, June 24th, 1933.
- WOOLLARD, H. H., M.D., and NORRISH, R. E., F.R.C.S. "The Anatomy of the Peripheral Sympathetic Nervous System." *British Journal of Surgery*, July, 1933.

\* Apologies are due to Dr. Maxwell for a mistake in this announcement in the June issue.

## CHANGES OF ADDRESS.

- BURNE, T. W. H., Four Winds, Chesham Bois, Bucks. (Tel. Amer-sham 50.)
- CORBETT, RUPERT S., 36, Harley House, W. 1. (Tel. Welbeck 3080.)
- EYTON-JONES, F. M. M., Redcroft, 59, Arundel Road, Littlehampton.
- HARRISON, L. F. A., Hill Cottage, Sutton at Hone, Kent.
- WHITEHEAD, F. E., The Elms, Oulton Broad, Lowestoft.
- WRIGHT, Surgeon-Commander F. C., R.N., Killock, Western Road, Canford Cliffs, Dorset.

## APPOINTMENTS.

- KING, J. F. LASCELLES, M.B., B.S.(Lond.), appointed Out-Patient Anaesthetist to the Hospital for Sick Children, Great Ormond Street, W.C. 1.
- KLABER, ROBERT, M.D.(Lond.), M.R.C.P., appointed Physician to the Skin Department, The Prince of Wales's General Hospital, Tottenham.

## BIRTHS.

- BOSTON.—On July 5th, 1933, at 3, St. Mark's House, Regent's Park Road, N.W. 1, to Kathleen (*née* Carnon), wife of F. K. Boston, M.B.—a son.
- BROCKLEHURST.—On July 15th, 1933, at 7, Rylestone Grove, Stoke Bishop, Bristol, to Sybille and Robert J. Brocklehurst—a son.
- COLDREY.—On July 7th, 1933, at Chatham House, Rotherham, to Eleanor (*née* Gardiner), wife of Eric Coldrey, M.D.(Lond.), F.R.C.S. (Eng.)—a son.
- EVERETT.—On June 20th, 1933, to Nancy (*née* Harris), wife of Alan D. Everett, F.R.C.S., of Montague House, Leatherhead—a son.
- ORMEROD.—On June 24th, 1933, at St. Ronald, Broomhill Road, Woodford Green, to Margot (*née* Martin), wife of Thomas Laurence Ormerod, M.B.—a son.
- POLLARD.—On July 15th, 1933, at King George V Hospital, Malta, to Honor, wife of Surgeon-Lieutenant-Commander E. B. Pollard, R.N.—a daughter.
- RICE.—On July 9th, 1933, at 47, Thorpe Road, Norwich, to Doris, wife of Dr. Raymond Rice—a son.

## MARRIAGES.

- GREEN—HINDE.—On July 8th, 1933, at Holy Trinity Church, Street, Somerset, Francis H. K. Green, M.D., M.R.C.P., eldest son of Mr. and Mrs. K. W. Green, of Yarradale, North Finchley, to Elsie Joyce, only daughter of Mr. and Mrs. Karl Hinde, of Rosewood, Street, Somerset.
- HARRIS—ANGUS.—On July 29th, 1933, at St. Peter's, Eaton Square, W., by the Rev. Austin Thompson, M.A., Arthur George Jeaffreson Harris, M.B., B.Ch.(Cantab.), eldest son of Dr. and Mrs. H. G. Harris, of Southampton, to Marjorie Dora, only daughter of Mr. Alfred H. Angus, of Lexham Gardens, W.

## DEATHS.

- DOWNS.—On July 11th, 1933, at 14, Sylvan Avenue, Exeter, Arthur Reed Down, L.R.C.P., aged 69.
- JEANS.—On June 21st, 1933, suddenly, at Harrogate, Frank A. G. Jeans, M.A.(Cantab.), F.R.C.S., of 63, Rodney Street, Liverpool, second son of the late Sir Alexander Jeans, aged 55.
- JOLLIFFE.—On May 24th, 1933, Walter John Jolliffe, M.R.C.S.
- POYNDR.—On June 26th, 1933, at Bickington Lodge, John Leopold Poynder, Lt.-Col. (ret.), Indian Medical Service, aged 78.
- RICHARDS.—On July 13th, 1933, at a nursing home at Chiswick, William Hunter Richards, J.P., M.S., F.R.C.S., aged 63.
- ROBINSON.—On June 24th, 1933, at Greenhill Gate, Weymouth, John Elliott Robinson, M.B., D.P.H., County Medical Officer of Health of Dorset, aged 59.

## NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, E.C. 1.

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